

# TOWSON STATE COLLEGE BULLETIN



GRADUATE STUDIES

1971-1972

DECEMBER, 1971

*The student is responsible for complying with the provisions and requirements as they are written in this publication; however, the provisions of this publication are not to be regarded as an irrevocable contract between the student and Towson State College. The College reserves the right to change any provision or requirement at any time within the student's term of residence, or to add or withdraw course offerings.*

### ACCREDITATION

Towson State College is accredited by the Middle States Association of Colleges and Secondary Schools, the Maryland State Board of Education and the National Council for the Accreditation of Teacher Education. The College is a member of the American Council on Education and is approved by the American Association of University Women.

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# TOWSON STATE COLLEGE



GRADUATE STUDIES 1971-1972  
BALTIMORE, MARYLAND 21204

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# Academic Calendar 1971-72

## 1971

- Nov. 6 Sat. Comprehensive Examination  
 24 Wed. Thanksgiving vacation begins after last class.  
 29 Mon. Classes resume.
- Dec. 15 Wed. Final date to submit for Spring Semester "Application for Admission to Graduate Studies" to Dean of Graduate Studies.  
 23 Thurs. Last day of examinations and evening classes.

## 1972

- Feb. 2 Wed. Registration\*, Burdick Hall. Day and Evening Students.  
 4 Fri. Post-baccalaureate students should see Registration Time Schedule in schedule of courses booklet.  
 5 Sat. Late Registration in Burdick Hall. See Registration Time Schedule in schedule of courses booklet.  
 7 Mon. Classes begin.  
 8 Tues. Schedule changes accepted  
 10 Thurs.  
 15 Wed. Final date to apply for Comprehensive Examination.
- Mar. 4 Sat. Comprehensive Examination  
 30 Thurs. Spring vacation begins after last class.
- Apr. 10 Mon. Classes resume.
- May 15 Mon. Final date to submit for Summer Sessions "Application for Admission to Graduate Studies" to Dean of Graduate Studies.  
 22 Mon. Graduation fees due  
 25 Thurs. Final date to apply for Comprehensive Examination.  
 27 Sat. Last day of classes.
- June 4 Sun. Commencement
- June 24 Sat. Comprehensive Examination
- Aug. 15 Wed. Final date to submit for Fall Semester "Application for Admission to Graduate Studies" to Dean of Graduate Studies
- Oct. 17 Tues. Final date to apply for Comprehensive Examination.
- Nov. 4 Sat. Comprehensive Examination.

Students should consult the College Bulletin of April 1972 and the Undergraduate Evening College Bulletins of February and August 1972 for academic calendar information beyond that included in this bulletin.

\* No courses may be dropped or added on this day. Student advisement must precede this date.



DR. JAMES L. FISHER, President

# General Information

## HISTORY OF THE COLLEGE

Towson State College, the oldest and largest of Maryland's public colleges, traces its history back to 1865 when the General Assembly of Maryland established a state-wide public school system. The first state teacher training institution was the Maryland State Normal School which in 1935 became the State Teachers College at Towson. In 1963 the name Towson State College was adopted.

Formally opened in Baltimore on January 15, 1866, the Normal School was, for many years, the only institution devoted exclusively to the preparation of teachers for the public schools of Maryland.

The School occupied three different locations in the City of Baltimore before moving to its present suburban location in 1915.

In 1946 the arts and sciences program was introduced at Towson. Beginning as a two-year transfer program, it was extended to a four-year, degree-granting program in 1960.

In 1963 the College was authorized, by action of the Legislature, to expand its offerings in the arts and sciences while maintaining a strong program in teacher education and to change its name from State Teachers College at Towson to Towson State College.

In 1966 the College completed 100 years of service to the State, having graduated more than 12,000 students during its first century.

## DEVELOPMENT OF GRADUATE STUDIES

Graduate Studies at Towson State College began in June 1958 with the establishment of a Master of Education degree program in Elementary Education. This was initiated after two years of preliminary study and recommendations from teachers and school administrators.

Sixty-seven students were admitted to the degree program in the first session of 1958, and the number of students has increased to the more than 5800 enrolled in November, 1970. Since 1958, twelve additional programs leading to the Master's degree have been developed and approved and a number of other programs are in various stages of planning and approval. The programs presently offered and the dates of approval by the board of trustees are as follows:

### Master of Arts

General Psychology	1970
Geography	1970
School Psychology	1967 M.Ed., 1970 M.A.

### Master of Education

Art Education	1965
Early Childhood Education	1968
Elementary Education	1958
Guidance and Counseling	1965
Music Education	1969
Reading	1969
Secondary Education	1965
Urban Teaching	1966

### Master of Science

Audio Visual Communications	1971
Biology	1970



## THE CAMPUS

The College is situated on a campus of nearly 300 acres located a mile and one-half beyond the northern border of the city of Baltimore.

Within an eight-mile radius of the campus are all the cultural advantages of the city of Baltimore — the Peabody Conservatory of Music and Library, the Enoch Pratt Free Library, the Walters Art Gallery, the Baltimore Museum of Art, and the many theaters and other cultural centers necessary for a well-rounded college experience.

Campus buildings and facilities give excellent support to the various College programs. The following are a particular interest to graduate students:

1. Stephens Hall, one of the original campus buildings, houses most of the administrative offices as well as some classrooms. This building with its clock tower has become a landmark in the Baltimore area. Offices of the Graduate Division are located in the south wing of Stephens Hall.
2. The Albert S. Cook Library has well-developed holdings in the arts and sciences and teacher education. Towson's long history of teacher education is reflected in the extensive collections of bound volumes, reference works and periodicals in this field as well as substantial holdings in microfilm and microcard. The collections of curriculum materials, textbooks, trade books and audio-visual aids are particularly noteworthy. A large addition to the Library was completed in 1969.
3. Van Bokkelen Hall is a classroom building for the departments of art and mathematics. In addition, it contains recording and listening rooms for the Speech and Drama Department, piano practice rooms for the Music Department and display areas for the Art Department.
4. Linthicum Hall, completed in 1967, is the largest classroom building on campus. Many faculty offices are also located here.
5. Smith Science Hall was first occupied in the fall of 1965. Included in the building are biology, chemistry, physics and science education offices, classrooms, laboratories and special function rooms such as student and faculty work and preparation areas. The Watson-King Planetarium is on the top floor.
6. Lida Lee Tall Learning Resources Center greatly facilitates field studies of children from nursery school through grade six.
7. Burdick Hall, the new gymnasium, and additional athletic fields were completed in the 1967-1968 college year.

A new College Center, Administration Building, and a Fine Arts Building are under construction.



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## BOARD OF TRUSTEES

The College is governed by a nine-member Board of Trustees — eight members appointed by the Governor for nine-year terms — and the State Superintendent of Schools, a permanent member, ex officio. This same board also controls the five other state colleges.

Created by the General Assembly of 1963, the Board was a recommendation of the Commission for the Expansion of Public Higher Education in Maryland and replaced the State Board of Education as the College's controlling agency.



## GRADUATE STUDIES COMMITTEE

The Graduate Studies Committee determines policy for all graduate programs. Graduate curriculum matters are also the responsibility of the Committee. The membership is comprised of the Dean of Graduate Studies and the Chief Academic Officer, both of whom shall serve in ex officio, non-voting capacities, and six members of the faculty of the rank of Associate Professor or Full Professor, appointed by the President of the College for overlapping terms of three years. The Chairman and Secretary of the Graduate Studies Committee will be elected from the membership of the Committee. Meetings are held monthly during the academic year and at other times when necessary.

## GRADUATE STUDIES COORDINATORS

The Graduate Studies Coordinators is a group comprised of the coordinators of each graduate program and the Associate Director of Graduate Studies. This group administers all graduate work within the policies set by the Graduate Studies Committee.

## ADVISEMENT

Graduate student advisement is the responsibility of the Dean and Associate Director of Graduate Studies, the Graduate Studies Coordinators and faculty members serving on the Graduate Staff. Students are encouraged to seek an appointment with one of the advisory staff. All conferences with advisers should be arranged by appointment and well in advance of Registration dates.

## GRADUATE DIVISION OFFICE HOURS

The Graduate Division Office is open each weekday (except for scheduled holidays) from 8:30 a.m. to 5:00 p.m. During Registration, the Office is also open in the evening according to the Registration schedule. Students may arrange for appointments with the Graduate Division Staff at other hours.

## CORRESPONDENCE

All correspondence concerning graduate study should be addressed to:  
Dean of Graduate Studies  
Towson State College, Baltimore, Maryland 21204

## LIBRARY PRIVILEGES

Graduate students are issued College identification cards for borrowing privileges. Books and materials from other libraries in the area may be requested on Inter-Library Loan by graduate students.

Mon-Thurs.	8:00 a.m. to 10:00 p.m.
Fri.	8:00 a.m. to 5:00 p.m.
Sat.	9:00 a.m. to 5:00 p.m.
Sun.	2:00 p.m. to 6:00 p.m.

# Registration and Financial Information

## REGISTRATION

Information concerning registration may be obtained prior to each session at the Evening and Summer School Office. Students who have received a letter of standing have records on file in the Graduate Office and may, therefore, avail themselves of the opportunity to register by mail according to Evening and Summer School Office procedures. Post baccalaureate students who have never applied for admission and are registering for the first time may take 300-level and 400-level courses by filling out the "Application for Admission to Graduate Studies" and having transcripts of all collegiate work sent to the Graduate Office prior to any additional course work being approved. Registration for 500-level and 600-level courses is contingent upon the granting of Graduate Student standing.

## FEES

Tuition and other fees are subject to change without notice by action of the Board of Trustees.

Any post-baccalaureate student enrolled in courses receiving graduate credit is considered to be taking graduate-level work. The semester hour fee, therefore, will be assessed at the graduate rate. Courses not offered for graduate credit taken by the post-baccalaureate students will be assessed at the undergraduate rate for each semester hour.

A listing of the various fees follows:

Application Fee: a non-refundable fee assessed each student	\$10.00
Tuition: undergraduate, per semester hour	\$25.00
graduate *, per semester hour	\$35.00
Registration Fee: a non-refundable fee assessed every student each term	\$ 5.00
General College Fee: a non-refundable fee assessed every student each term	\$ 9.50
Late Registration fee: a non-refundable fee assessed every student registering after the dates set for regular registration	\$ 5.00
Change of Course Fee: a non-refundable fee assessed for the addition or subtraction of courses from either the original application or from the registration form	\$ 5.00
Transcript Fee: charged after the first copy	\$ 1.00
Car Registration Fee: an assessment for each student bringing a car on campus	\$ 4.00
Final or Make-up Examination Fee: a charge made if an examination is administered at other than the designated time	\$ 5.00
Laboratory Fee: charged for certain courses	see course description
Private Music Lessons:	\$50.00 plus tuition
Graduation Fee: for Master's Degree, Plan A (with Thesis)	\$30.00
Plan B (without Thesis)	\$25.00

\* Graduate tuition must be paid by anyone holding a baccalaureate degree who takes courses listed as available for graduate credit.

# Student Personnel Program

Graduate students are welcome to use the facilities and services of the Student Personnel Program. Students are also invited to avail themselves of the many programs presented by the Special Events Committee of the College. The Student Government Association offers for \$5.00 per semester a card admitting graduate students to all of the activities sponsored by the Association including lectures, plays, musical, athletic and social events.

## COLLEGE CENTER

The present facility is titled the College Center and it is located on the ground floor of the west wing of Newell Hall. The College Center in cooperation with the academic departments provides a program of activities in which the graduate students are encouraged to participate. These activities are publicized in the weekly calendar of activities and circulated to the departments and posted in the College Center.

The College Center is open every evening until 11 p.m., and on Friday and Saturday until midnight. Included in the facility is a snack bar service, a colored television, a chapel, recreational facilities and lounges.

The new College Center is planned for completion by mid-semester, Fall 1971. The College Center will include eight bowling alleys, a T.V. lounge, a snack bar, a music listening room, 16 billiard tables, showers and lockers for commuting students. The new facility will also include the College Book Store, a large cafeteria, a meditation room, a central lounge, an art gallery, and a special dining room. Facilities will be available for all types of conferences and meetings. The Food Service area will include catering for any type of event from coffee and donuts to a gourmet dinner. Organizational offices and meeting space will be included in the College Center. Graduate students are encouraged to use the new facilities.



## BOOK STORE

The present Book Store is located in the new College Center. It is open Monday through Thursday from 8:30 a.m. until 7:30 p.m. and Friday, 8:30 a.m. until 4:30 p.m. Additional hours are arranged at the beginning of each semester.

The Book Store presently stocks classroom supplies, phonograph records, hard-back and paper-back books, gifts, magazines, as well as sundry personal items.

## TICKET BOX OFFICE

The College Center also provides a discount ticket service for most of the local dinner theaters and movie theaters and other community activities. The office also handles all tickets necessary for our campus events. The Ticket Box Office is located on the main level of the new College Center. The manager's extension is 624.

## HEALTH CENTER

The Anita Dowell Health Center is located northeast of Linthicum Hall. It is open week days until 9 p.m. and thereafter for emergencies. First aid is administered and appropriate referrals are made. All accidents on campus should be reported to the Health Center immediately. A mental health service is available for students seeking psychiatric help.

## FINANCIAL AID PLACEMENT SERVICE

Appointments may be made during the day and early evening hours with the appropriate official in the office of the Dean of Students to discuss limited financial aid or assistance in placement.

A number of graduate assistantships are available to graduate students in a master's degree program. To receive an assistantship, a student must be recommended by the appropriate department. Detailed information concerning the assistantships may be obtained by writing to the Dean of Graduate Studies.

## RESIDENCE ON AND OFF CAMPUS

Provision is made to house a few graduate students on campus. Interested students should communicate with the Director of Residence, Newell Hall. The Housing Office in Newell Hall provides listings of off-campus accommodations. Arrangements for conferences should be made in advance by telephone.

## GENERAL COUNSELING

The Dean of Students, the Associate Dean of Students and the Director of the Counseling Center are available in the early evening hours or during the day, by appointment, for consultation on matters of individual concern.

## PARKING

The operation and possession of motor vehicles in the Towson community and the use of campus parking facilities are privileges extended to all college personnel (faculty, staff, and students). These privileges carry with them the obligation to observe all regulations.

The map on the cover of this bulletin designates the parking areas for faculty, staff, and students. Student parking permits are \$4.00 each and may be obtained when other registration fees are paid.

## MESSAGES

The switchboard at the entrance of Stephens Hall will be open until 11 p.m. Monday through Thursday, on Friday until 8 p.m., and from 9 a.m. until 5 p.m. on Saturday. Emergency messages ONLY may be received and relayed to staff and class members through the Evening and Summer School office. Emergency messages do not include reported absences or reasons for absence.

# Academic Regulations Governing Graduate and Post-Baccalaureate Study

## GENERAL ADMISSIONS POLICY

Admission to the Graduate Division at Towson State College is granted to all applicants whose academic and personal qualifications give promise of success in graduate study. Students will be given a classification within the Graduate Division appropriate to their qualifications. The Board of Trustees of the State Colleges has established the requirement that admission to the State Colleges shall be determined without regard to race, color, religion, or sex.

All students seeking admission to the Graduate Division must file an "Application for Admission to Graduate Studies" prior to first enrollment, submit scores of the Aptitude portion (and the Advanced test if required by the particular degree program) of the Graduate Record Examination, and have official transcripts of all college work sent to the Graduate Division. Transcripts must be sent directly from the institutions attended to the Graduate Office at Towson State College.

Students for whom English is a second language must take the Test of English as a Foreign Language (TOEFL) and submit the scores to the Graduate Office prior to first enrollment.

## ADMISSION TO COURSES FOR GRADUATE CREDIT\*

An applicant for admission to courses for graduate credit (classification: Graduate Student) must meet admission requirements in one of two ways: 1) By holding a Master's or Doctor's degree from a regionally accredited college or university, 2) By holding a Bachelor's degree from a regionally accredited college or university, a grade average of 3.00 ("B"), and a total score on the Aptitude portion of the Graduate Record Examination of 900 or higher. At the option of the coordinator the grade requirement may be satisfied by a "B" average in one of the following areas of the applicant's undergraduate academic record: a) The complete record of four years work, b) The most recent 60 hours of course work, c) The courses making up the undergraduate major and minor if the student plans to continue his studies in these same fields. The quality of graduate work taken beyond the Bachelor's degree, either as post-baccalaureate (non-graduate credit) courses or graduate credit courses, will be evaluated as part of the undergraduate record. Recommendations from persons who can appraise the student's academic qualifications may be required.

Students for whom English is a second language must score a minimum of 500 on the Test of English as a Foreign Language (TOEFL) in order to be eligible for admission to Graduate Student Standing.

All required application credentials (see General Admissions Policy) must be filed with the Dean of Graduate Studies no later than August 15 for the Fall Semester, January 1 for the Spring Semester, or May 15 for the Summer Session to be considered for admission. Those who are admitted as Graduate Students may register for courses numbered 100-699, but will receive graduate credit only in graduate level courses numbered 300-699 completed with grades of "C" or better. Certain experimental courses approved by the Graduate Studies Committee may receive graduate credit. Service Courses\* and several 300-level and 400-level undergraduate prerequisite courses are not given graduate credit. In order to maintain the classification of Graduate Student, a good academic record must be achieved even if the student is not in a degree program.

\*e.g., safety and driver education courses do not receive graduate degree credit.





## CANDIDATES FOR DEGREES AT OTHER INSTITUTIONS

A student who is a candidate for an advanced degree at another college or university may enroll as a Graduate Student at this college for occasional work. He must present, at least two weeks before registration, a letter from the Graduate Dean of his parent institution indicating that he is in good standing and that credit earned at Towson State College is acceptable towards his degree.

## ADMISSION TO COURSES FOR POST- BACCALAUREATE WORK (NON-DEGREE PROGRAMS)

Students who do not meet the standards required for classification as Graduate Student are permitted to register with the classification of Non-Graduate Student and pursue non-degree programs. Those students receiving Non-Graduate Standing (Qualifying Program and Denied) are eligible to take courses at the 100-level through the 400-level, but receive graduate credit only in courses numbered 300-499 and listed in the current bulletin as "Undergraduate and Graduate".

Non-Graduate Students pursuing non-degree programs at the post-baccalaureate level, however, must file all required application credentials (see General Admissions Policy) in advance with the Dean of Graduate Studies.

Students who believe they can meet the admission requirements for Graduate Student standing but who fail to file the required application credentials in advance must register as Non-Graduate for the semester. However, they will be considered for admission to Graduate Student standing if their application credentials are received by the college before the end of the first quarter of the semester. If they are admitted to Graduate Student standing they will then be permitted to receive graduate credit for satisfactory completion of any 300-level and 400-level graduate courses (except Service Courses \* and several undergraduate prerequisite or specifically senior courses) in which they may be enrolled. Approval for course work beyond one semester will not be given until the application credentials are received.

## GRADUATE WORK BY SENIORS AT TOWSON STATE COLLEGE

Seniors in their last semester of work at Towson State College may take 300-level and 400-level courses for graduate credit and 500-level and 600-level courses if they meet the following requirements: 1) The graduate courses must be in excess of the 128 hours required for the Bachelor's degree, 2) An application to the Dean of Graduate Studies for Graduate Student classification (which requires a 3.00 average), submitted in advance for specific graduate courses (by August 15 for the Fall Semester, January 1 for the Spring Semester, and May 15 for the Summer Session) must be approved, 3) The student must submit all required application credentials (see General Admissions Policy) and receive Graduate Student Standing prior to receipt of graduate credit for satisfactory completion of the courses, and prior to initiation of further course work.

## THE QUALIFYING PROGRAM

A Qualifying Program has been designed to test the readiness for graduate work of those students whose academic achievement falls short of the standards required for Graduate Student standing but whose records show promise on several other grounds. Those who pass the Qualifying Program are admitted to the standing.

Students with a grade-point average of 3.00 but whose scores on the Aptitude portion of the Graduate Record Examination are less than 900 are not eligible for Graduate Student Standing but may be admitted to the Qualifying Program.

\*e.g., safety and driver education courses do not receive graduate degree credit.



## REQUIREMENTS FOR THE MASTER'S DEGREE

Other factors which will be considered in determining whether an applicant should be admitted to the Qualifying Program are: 1) academic average in all collegiate work must be at least 2.30 in one or more of the areas of the student's record listed above in "ADMISSION TO COURSES FOR GRADUATE CREDIT". Students with an average of 2.00-2.29 and a score of 1000 or higher on the Aptitude Test of the Graduate Record Examination may be admitted to the Qualifying Program. 2) The quantity and quality of teaching or counseling experience in the field in which he plans to major as a Graduate Student. In addition, recommendations from persons who can appraise the student's academic qualifications and professional experience may be required.

The Qualifying Program consists of 1) A minimum of six hours and a maximum of fifteen hours chosen from courses at the 300-level and 400-level listed in the current Graduate Bulletin. The Graduate Program Coordinator may designate the content of the Qualifying Program. All course work on the Qualifying Program must be completed within two years of entrance to Graduate Studies. The courses must be completed with a 3.00 average. In the Master of Education degree Qualifying Program, at least one course must be in Education and one outside Education. In the Master of Arts and Master of Science degree Qualifying Programs, no course in Education is required. An adviser will be assigned to the student to assist him and to help evaluate his work.

Students in the Qualifying Program are enrolled as Non-Graduate Students. Their course work will not count towards any advanced degree but may be given graduate credit towards the Advanced Progressional Certificate as determined by the State Board of Education. (Towson State College does not offer an Advanced Professional Certificate.) While in the Qualifying Program students may be asked to complete certain undergraduate requirements for the degree program in which they may be interested.

1. Advancement to Candidacy for the Master's degree. Students admitted as Graduate Students are not candidates for a degree until all the requirements listed below have been met:
  - a) An application for Advancement to Degree Candidacy for the Master's degree must be made by Graduate Students during the semester in which fifteen hours of graduate courses are completed at Towson State College. The student may make the application after nine hours of graduate courses have been completed. Six credit hours of this work must have been taken in 500- and 600-level courses. Application is made to the Dean of Graduate Studies during the semester in which Advancement is desired.
  - b) A 3.00 average in all graduate work at this college.
  - c) Successful completion of the Advancement to Degree Candidacy Examination.
  - d) The filing of a Program of Study with the Dean of Graduate Studies. The Program, to be completed in consultation with an adviser, must be drawn up on forms provided by the appropriate graduate coordinator. It may be revised at any time with the adviser's approval.
  - e) All undergraduate requirements must be completed prior to application for Advancement to Degree Candidacy.

Course work taken beyond the semester in which the student attains fifteen hours at this college will not be considered degree credit unless the student has been Advanced to Candidacy prior to initiation of the course work for the semester.





The following regulations apply only to students admitted to Graduate Studies prior to January 1, 1972.

They may elect to be advanced to Degree Candidacy under the current plan if they meet the following requirements: a) Advancement to Degree Candidacy has not previously been attained. b) The student has not taken course work beyond the semester in which fifteen hours of degree credit were attained.

In keeping with the admissions intent of the Graduate Record Examination, under the current policy, the Aptitude Test will no longer be required for Advancement to Degree Candidacy.

2. It is the option of the department to administer a final comprehensive examination to any student prior to the awarding of the degree. The final comprehensive examination may not be taken earlier than the term during which he will complete his course work. The examination may be repeated only once. Students presenting a thesis in partial fulfillment of their degree requirements will be required to take an oral examination on the thesis. \*All requirements, including the final comprehensive examination, if required by the department, and the thesis, if applicable, must be completed by the end of the seventh year of graduate study. This period of study is assumed to begin at the time the student initiates his graduate degree work.

3. Eighteen or more of the total required course credits for any degree program must be earned in 500-level and 600-level courses.

4. In order to remain in good standing, candidates for the Master's degree must maintain a 3.00 average after being advanced to degree candidacy. If the cumulative average falls below 3.00, the student will be placed on probation. If after completing nine more hours of work his cumulative average remains below 3.00, he will be dropped from candidacy; otherwise he will be restored to good standing. A student attempting to restore his average to a 3.00 in a program with a thesis must accomplish this by the completion of 36 hours in a thesis program and by 39 hours in a program without a thesis. A student on probation will not be permitted to take comprehensive examinations leading to any degree. Required courses in which the candidate earns a grade of "D" must be repeated, since the grade does not confer graduate credit.

5. The thesis and seminar requirements of the programs which demand them represent a major part of the student's advanced study. The thesis\* must demonstrate the student's ability to do independent research and to write effectively as evaluated by a thesis committee appointed by the Dean of Graduate Studies. The seminar paper must exhibit similar qualities of research and writing as evaluated by the professor teaching the seminar.

## THESIS PROCEDURE

Students intending to write a thesis in partial fulfillment of the requirements for the degree should obtain the brochure "Thesis Procedure" from the Graduate Office. The following steps must be completed prior to approval of registration for the appropriate Thesis course:

1. The student declares in writing to the Dean of Graduate Studies his intent to complete the Thesis requirement.

2. The student meets with the Graduate Coordinator to select a Research Adviser.

3. A Thesis topic is agreed upon.

4. Suggested members of the Thesis Committee are submitted by the department to the Dean of Graduate Studies.

5. The Thesis Committee is appointed by the Dean of Graduate Studies.

\*See thesis procedure

6. The student prepares a Thesis Outline and submits copies to all members of the Thesis Committee.
7. The student and his advisor schedule a meeting of the full Committee and the student orally presents and defends his Outline.
8. The accepted outline must be filed with the office of the Dean of Graduate Studies.
9. The student begins his Research.
10. At the next registration for courses, the student *must* register for the appropriate Thesis course.

## TRANSFER CREDIT

The following regulations govern the transfer of credits from other regionally accredited colleges:

1. A maximum of six transfer credits for graduate courses taken prior to enrollment at Towson State College is allowed if the student is initially admitted to Graduate Student Standing at this college and if the courses are relevant to the student's major.
2. Transfer credit after a student has attained Graduate Student Standing may be permitted if the student applies in writing to the Dean of Graduate Studies for permission. Normally, approval will be given only for courses which are not offered by Towson State College during the period of the student's attendance.
  - a. A maximum of twelve transfer credits may be allowed for graduate work satisfactorily completed at the State Colleges: Bowie, Coppin, Frostburg, Morgan, and Salisbury.
  - b. A maximum of six transfer credits may be allowed for graduate courses completed at accredited colleges or universities not listed above. Permission for these credits can be granted only if the student has not transferred courses taken prior to entrance at Towson State College.
3. The total accumulation of transfer credits from all courses listed in 1 and 2 above may not exceed twelve.
4. All transfer credits must be completed with a grade of "B" or higher and must remain within the total span of seven years allowed for completion of degree requirements.

## ADMISSION PRIOR TO RECEIVING BACCALAUREATE DEGREE



Admission of applicants whose required application credentials are incomplete because the baccalaureate degree has not yet been conferred may be granted to seniors in their last semester of work. Evaluation will be made on the basis of their undergraduate work through the first semester of the senior year. Standing granted in the pre-degree category is made at the option of the Graduate Program Coordinator to enable the student to begin work in courses carrying graduate credit immediately upon completion of the senior year. The applicant must have all application credentials completed during the first month after classes begin in the semester he initiates his course work. Admission standing is subject to cancellation or change if the admission credentials remain incomplete or do not meet the requirements for admission. If admission as a Graduate Student is denied, the student will be required to withdraw any 500-level or 600-level course for which he has registered. Continuation of students in courses below the 500-level will be permitted.

# Graduate Programs

## PROGRAMS AND PURPOSES

The Master of Arts degrees in Geography, General Psychology, and School Psychology and the Master of Science degrees in Biology and Audiovisual Communications are intended to develop further specific knowledge in the respective fields. It is the intent of these programs to enable students to meet their needs through the flexibility within each program.

The programs leading to the Master of Education degree have been developed primarily to help school teachers and guidance counselors increase their competency in the following general areas:

- Art Education
- Early Childhood Education
- Elementary Education
- Guidance and Counseling
- Music Education
- Reading
- Secondary Education
- Urban Teaching

## M.A. IN GEOGRAPHY

The Master of Arts in Geography is available for those who are primarily interested in an advanced degree. The program is designed to provide qualified students with a broad mastery of the field through a balanced curriculum of systematic studies, regional studies, and research experiences leading to a thesis. Emphasis is placed on field work, individual study and research, and on the application of approaches and techniques used in Geography in the study of problems concerned with physical and cultural phenomena.

Students who complete the Master of Arts in Geography should develop a better understanding of the nature of geography and its relation to other disciplines. They will be adequately prepared to undertake more advanced degrees in geography or to qualify for a number of career areas such as, teaching in the community college, four-year college or university levels, positions with various federal, state, and county government agencies, and in industry.

## Requirements:

1. Undergraduate Requirements
  - a. At least a minor in Geography or the equivalent.
  - b. At least a "B" grade average in the Geography courses presented for admission.
  - c. Acceptable achievement on the Graduate Record Examination in Geography.
2. Requirements for the degree:
  - a. A Program of Study will be prepared by each student in consultation with his advisor. The Program of Study will be presented to a Graduate Committee of the Geography Department. Candidates may be required to justify their program before the Committee.
  - b. Presentation of evidence of at least a fourth semester of college level competency in one modern language is required prior to Advancement to Degree Candidacy.
  - c. A thesis will be required of all students.
  - d. At least 15 semester hours in Geography must be earned at the 500-600 levels.





## THE M. A. IN GENERAL PSYCHOLOGY

- e. Required Courses (14 hours)
  - 1) Geog 34.481 Seminar: Selected Topics in Geography (2 hrs.)
  - 2) Geog 34.521 Research Techniques in Geography (3 hrs.)
  - 3) Geog 34.493 Field Geography (3 hrs.)
  - 4) Geog 34.697 Research (Thesis) (6 hrs.)
- f. Elective Courses (16 hours)
  - 1) Courses must be in Geography
3. Comprehensive Examination. The student must take and pass a Comprehensive Examination (written or oral) not earlier than the term during which he will complete his course work.

The Master of Arts degree in General Psychology is designed to train qualified students in the area of General Psychology. The General Psychology program has as its premise a thorough training in scientific psychology, which will enable the student to obtain a firm background before specializing in a specific psychological area. Training in scientific methodology and procedures is required.

Students who complete this program will be prepared either to pursue more advanced degrees in Psychology or compete adequately in the job market for trained psychometricians, laboratory technicians or experimental designers. Perhaps, most importantly, students completing this program will be available to staff junior college and lower level college and university courses in Psychology.

### Requirements:

1. Undergraduate Requirements
  - a. Courses in the following areas
    - 1) Statistics (3 hrs.)
    - 2) Experimental Psychology (3 hrs.)
    - 3) History and Systems of Psychology (3 hrs.)
    - 4) Physiological or Comparative Psychology (3 hrs.)
    - 5) Learning (3 hrs.)
2. Course Requirements for the Degree. They may be met by completing the following:
  - a. The Core Program (25 hours)
    - 1) Psyc 70.581 Advanced History and Systems (3 hrs.)
    - 2) Psyc 70.587 Experimental Design (3 hrs.)
    - 3) Psyc 70.577 Learning (3 hrs.)
    - 4) Psyc 70.573 Advanced Experimental Psychology (4 hrs.)
    - 5) Psyc 70.579 Seminar (1 hr.)
    - 6) Psyc 70.588 Experimental Design (3 hrs.)
    - 7) Psyc 70.574 Advanced Experimental Psychology (4 hrs.)
    - 8) Psyc 70.580 Seminar (1 hr.)
    - 9) Psyc 70.584 College Teaching Seminar (3 hrs.)
  - b. Elective Courses (5 hrs.)
    - 1) Student may choose any graduate elective at the 300-600 levels
  - c. Thesis (3 hrs.) An oral defense of the thesis will be required.
  - d. Comprehensive Examination.
 

Following the completion of 30 semester hours, each student must take a 6 hour written comprehensive examination.
  - e. Competency in a foreign language
 

OR

Proficiency in statistics or computer programming
  - f. Residency
 

Each student must become full-time for at least one semester. During this semester requirements of the College Teaching Seminar will be fulfilled.

## THE M.A.IN SCHOOL PSYCHOLOGY



The Master of Arts in School Psychology aims primarily at preparing qualified students for certification as school psychologists. Because of the broad application of these skills, the students at the same time are being prepared to function in clinical settings as well. The program also seeks to prepare students for advanced graduate study in School Psychology and in Clinical Psychology.

### Requirements:

#### 1. Undergraduate Requirements in Psychology (total: 27 hours)

- a. Courses in the following areas:
  - 1) Six hours chosen from the following:
    - a) General Psychology (3 hrs.)
    - b) Educational Psychology or Human Growth and Development (3 hrs.)
    - c) Child Psychology (3 hrs.)
    - d) Adolescent Psychology (3 hrs.)
  - 2) Three hours chosen from the following:
    - a) Mental Hygiene (3 hrs.)
    - b) Abnormal Psychology (3 hrs.)
  - 3) Three hours chosen from the following:
    - a) Systems of Psychology (3 hrs.)
    - b) History of Psychology (3 hrs.)
  - 4) Experimental Psychology (3 hrs.)
  - 5) Personality (3 hrs.)
  - 6) Personality Measurement (3 hrs.)
  - 7) Tests and Measurements (3 hrs.)
  - 8) Behavioral Statistics (3 hrs.)

NOTE: These courses cannot be used to meet part of the formal elective requirements for the degree as defined in Paragraph 2 below. These courses must be completed prior to initiation of for-course work for the degree.

- b. Acceptable achievement on the Graduate Record Examination in Psychology.
  - c. An interview with the Coordinator of the School Psychology Program.
- #### 2. Course Requirements for the Degree. They may be met by completing either one of the following two plans of study:
- a. Plan A. Master of Arts with Thesis (Minimum 30 semester hours)
    - 1) Required Courses
      - a) Psyc 70.531 Advanced Abnormal Psychology (3 hrs.)
      - b) Psyc 70.560 Psychodynamics of Human Behavior (3 hrs.)
      - c) Psyc 70.563 Systems of Psychotherapy (3 hrs.)
      - d) Psyc 70.591 Projectives I (3 hrs.)
      - e) Psyc 70.592 Projectives II (3 hrs.)
      - f) Psyc 70.485 Advanced Experimental Design (3 hrs.)
      - g) Psyc 70.420 Individual Intelligence Testing (3 hrs.)
      - h) Psyc 70.651 Practicum I (3 hrs.)
      - i) Psyc 70.652 Practicum II (3 hrs.)
      - j) Psyc 70.69; Proseminar (3 hrs.)

NOTE: When this plan is adopted by the student, 3 credits of the above required courses may be waived.
  - b. Plan B. Master of Arts without Thesis (Minimum 33 or 34 semester hours)
    - 1) Required Courses
      - a) Psyc 70.531 Advanced Abnormal Psychology (3 hrs.)
      - b) Psyc 70.560 Psychodynamics of Human Behavior (3 hrs.)
      - c) Psyc 70.563 Systems of Psychotherapy (3 hrs.)
      - d) Psyc 70.591 Projectives I (3 hrs.)
      - e) Psyc 70.592 Projectives II (3 hrs.)



## THE M.S. IN AUDIOVISUAL COMMUNICATIONS

- f) Psyc 70.485 Advanced Experimental Design (3 hrs.)
- g) Psyc 70.420 Individual Intelligence Testing (3 hrs.)
- h) Psyc 70.651 Practicum I (3 hrs.)
- i) Psyc 70.652 Practicum II (3 hrs.)
- j) Psyc 70.690 Proseminar (3 hrs.)
- k) One additional elective Psychology elective (3 hrs.)

The Master of Science Degree Program in Audiovisual Communications is designed to meet the varying needs of graduate students, especially teachers and administrators who have had limited contact and experience with this rapidly developing field of instructional communications and technology. The degree program will provide the student seeking an advanced degree with the opportunity to develop competencies and leadership needs.

### Requirements:

1. Undergraduate Requirements
  - a. Certification as a public school teacher OR
  - b. Successful completion of all requirements for an undergraduate major in an academic field.
2. Course Requirements for the Degree
  - a. Plan A. Master of Science in Audiovisual Communications with Thesis. (Minimum 30 semester hours)
    - 1) Required Courses (15 hours)
      - a) Avco 13.485 Seminar Workshop in Educational Technology (2 hrs.)
      - b) Avco 13.563 Applied Psychology of Learning (3 hrs.)
      - c) Avco 13.695 Seminar in Theory and Research in Audiovisual Communications (3 hrs.) AND
      - d) Six hours selected from:
        - Avco 13.573 Instructional and Facility Design (3 hrs.)
        - Avco 13.501 Organization, Administration, and Supervision of Audiovisual Communications Programs (3 hrs.)
        - Avco 13.689 Internship in Audiovisual Communications (3 hrs.)
    - 2) Elective Courses (15 hours)
      - a) The elective courses may all be in Audiovisual Communications or may be in a planned program which contains a maximum of twelve hours outside Audiovisual Communications.
      - b) Six hours must be selected from courses numbered 500-699
  - b. Plan B. Master of Science in Audiovisual Communications without Thesis. (Minimum 33 semester hours)
    - 1) Required Courses (15 hours)
      - a) Avco 13.485 Seminar Workshop in Educational Technology (3 hrs.)
      - b) Avco 13.563 Applied Psychology of Learning (3 hrs.)
      - c) Avco 13.695 Seminar in Theory and Research in Audiovisual Communications (3 hrs.) AND
      - d) Six hours selected from:
        - Avco 13.573 Instructional and Facility Design (3 hrs.)
        - Avco 13.501 Organization, Administration, and Supervision of Audiovisual Communications Programs (3 hrs.)
        - Avco 13.689 Internship in Audiovisual Communications (3 hrs.)
    - 2) Elective Courses (18 hours)
      - a) The elective courses may all be in Audiovisual Communications or may be in a planned program which contains a maximum of twelve hours outside Audiovisual Communications. Six hours must be selected from courses numbered 500-699.
      - b) Six hours must be selected from courses numbered 500-699.



## M.S. IN BIOLOGY

The Master of Science Degree Program in Biology is designed to provide greater knowledge and understanding of biology and to help the student develop a proficiency in independent thought, inquiry, and research. The degree program will provide the necessary background and experience for those desiring to teach in the increasing number of junior and community colleges, those whose employment requires an advanced degree in biology, and those who plan further study for the Ph.D. The program will enable secondary school teachers to extend their knowledge and increase their competence in cultivating the spirit of scientific inquiry through their own participation in research.

### Requirements:

1. Supplemental application must be filed for admission to the Master of Science in Biology.
2. An interview with members of the Biological Sciences faculty should be obtained.
3. Scores on the Biology Advanced Test of the Graduate Record Exam must be submitted.
4. Three letters of recommendation from persons familiar with the student's scientific work and aptitude must be sent to the Graduate Office. At least one of these letters should be from a former instructor in the student's undergraduate major.
5. Undergraduate Requirements
  - a. A thorough preparation in general biology.
  - b. Courses in botany, zoology, and genetics as well as allied courses in general and organic chemistry, physics, and mathematics.
6. Requirements for the Degree
  - a. Plan A. Master of Science with Thesis (Minimum 30 hours)  
At least 18 hours must be at the 500-600 levels. A Thesis based on laboratory and/or field research is required. The student must successfully complete the Advancement to Candidacy Examination.
    - 1) Required Courses (8-11 hours)
      - a) Biol 14.697 Graduate Seminar (1 hr.)
      - b) Biol 14.698 Graduate Seminar (1 hr.)
      - c) Biol 14.699 Thesis (6-9 hrs.)
    - 2) Elective Courses (19-22 hrs.) are to be chosen from courses approved by the Students' Advisory Committee.
  - b. Plan B. Master of Science without Thesis (Minimum 36 semester hours) At least 18 hours must be at 500-600 levels. Three research papers which represent the quality, but not the range, of a Thesis will be required. Of the three papers, one must be a survey and critique of the literature in a restricted research area and a second paper is based on a research project involving laboratory and/or field research conducted in Biol 14.601, 14.608, or 14.631. The student must successfully complete the Advancement to Candidacy Examination. A final oral examination (after completion of course work and acceptance of the three papers) will be required.
    - 1) Required Courses (11-13 hours)
      - a) Biol 14.697 Graduate Seminar  
Biol 14.698 Graduate Seminar
      - b) At least two of the following 500-600 level courses:  
Biol 14.533 Plant Morphogenesis (4 hrs.)  
Biol 14.534 Plant Distribution (3 hrs.)  
Biol 14.535 Environmental Plant Physiology (3 hrs.)  
Biol 14.561 Insect Ecology (4 hrs.)  
Biol 14.553 Biology of Terrestrial and Freshwater Invertebrates (4 hrs.)







## THE M. ED. IN ART EDUCATION

The Master of Education Degree Program in Art Education is structured to further an understanding of the creative process, with its educational implications, and to develop increased sensitivity to, and skill in the graphic and plastic arts. Students are encouraged to specialize in an area of expression so that they may develop greater understanding and professional competence.

### Requirements:

1. Undergraduate Requirements in Education and Art
  - a. Certification as a public school art teacher  
OR
  - b. Courses in both Art and Education areas as follows: (total: 32 hours):
    - 1) In Art (27 hours)
      - a) Fundamentals of Design (two and three dimensional) (6 hrs.)
      - b) Ceramics and Sculpture (6 hrs.)
      - c) Drawing, Painting and Graphic processes (some credit required in each area) (9 hrs.)
      - d) Art History (6 hrs.)
    - 2) In Education (5 hours)
      - a) Educational Psychology or Human Growth and Development (3 hrs.)
      - b) Methods of Teaching Art (2 hrs.)
2. Course Requirements for the Degree. They may be met by completing either one of the following two plans of study:
  - a. Plan A. Master of Education with Thesis (Minimum 30 semester hours)
    - 1) Required Courses (15 hours)
      - a) Edfs 27.501 Educational Ideas in Historical Perspective (3 hrs.)
      - b) Psyc 70.511 Developmental Psychology (3 hrs.)
      - c) Art 12.697 Art Education Seminar (3 hrs.)
      - d) Art 12.595 Research in Art and Art Education (3 hrs.)
      - e) Art 12.699 Master of Education Thesis (3 hrs.)
    - 2) The Thesis requirement may be met in one of two ways:
      - a) By writing a standard thesis dealing with a selected problem in Art and Art Education.
      - b) By undertaking a creative project. The Department must approve the project proposal. It is expected that the student will exhibit the completed project and accompany it with a suitable paper defining its scope and philosophy.
  - 3) Elective Courses (15 hours)
    - a) Courses numbered 500-699 should ordinarily be chosen, but a maximum of fifteen hours of work in courses numbered 300-499 may be taken with approval of the student's adviser.
    - b) Six hours may be taken in departments other than Art.

Biol 14.507 Physiological Ecology (4 hrs.)

Biol 14.509 Aquatic Biology (4 hrs.)

- c) One of the following courses to fulfill the research requirement:

Biol 14.601 Graduate Research (Plan B) (3 hrs.)

Biol 14.631 Experimental Plant Ecology (3 hrs.)

Biol 14.608 Investigation in Cell Physiology (3 hrs.)

- 2) Elective Courses (23-25 hours)

- a) These are to be chosen from courses approved by the Advisory Committee.

- b) Upon approval of the Advisory Committee, a maximum of 6 hours in allied courses from other departments may be applied toward degree requirements.

## THE M. ED. IN EARLY CHILDHOOD EDUCATION



- b. Plan B. Master of Education without Thesis (Minimum 33 semester hours)
  - 1) Required Courses (12 hours)
    - a) Edfs 27.501 Educational Ideas in Historical Perspective (3hrs.)
    - b) Psyc 70.511 Developmental Psychology (3 hrs.)  
(Formerly Human Growth & Development — Advanced)
    - c) Art 12.697 Art Education Seminar (3 hrs.)
    - d) Art 12.595 Research in Art and Art Education (3 hrs.)
  - 2) Elective Courses (21 hours)
    - a) Courses numbered 500-699 should ordinarily be chosen, but a maximum of fifteen hours of work in graduate level courses numbered 300-499 may be taken with approval of the student's adviser.
    - b) Six hours may be taken in departments other than Art.

The Master of Education Degree Program in Early Childhood Education is structured to help teachers and others to increase their competence for working in educational programs for children ages three through eight years. It is designed to prepare teachers, directors, and supervisors for various educational programs for young children such as day care centers, public and private nursery schools, kindergartens, primary schools.

### Requirements:

1. Undergraduate Requirements in Education
    - a. Certification as an early childhood education public school teacher  
OR
    - b. Certification as an elementary public school teacher plus six semester hours in Early Childhood Education at the undergraduate level  
OR
    - c. Courses in the following areas (total: 15 hours)
      - 1) General Psychology, Educational Psychology, or Psychology of Learning (3 hrs.)
      - 2) Child Psychology, Child Growth and Development, Human and Development, or Personality (3 hrs.)
      - 3) Curriculum and Methods in Early Childhood Education (6hrs.)
      - 4) Three hours chosen from the following areas:
        - a) History of Education
        - b) Foundations of Education
- NOTE: These courses cannot be used to meet part of the formal elective requirements for the degree as defined below.
2. Course Requirements for the Degree. They may be met by completing either one of the following two plans of study:
    - a. Plan A. Master of Education with Thesis (Minimum 30 semester hours)
      - 1) Required Courses (12 hours)
        - a) Edfs 27.501 Educational Ideas in Historical Perspective (3 hrs.)
        - b) Edpm 28.691 Introduction to Research in Education (3hrs.)
        - c) Edpm 28.699 Master of Education Thesis (3 hrs.)
        - d) Psyc 70.511 Developmental Psychology (3 hrs.)  
(Formerly Human Growth & Development — Advanced)
      - 2) Elective Courses (18 hours)
        - a) Twelve hours must be earned in departments other than education. Fewer than twelve hours may be earned in departments other than education with approval of the Program Coordinator.
        - b) At least six hours must be selected from courses numbered 500-699.
        - c) At least six hours must be selected from the following courses in Early Childhood Education:



Educ 26.381 Problems in Early Childhood Education (3 hrs.)  
 Educ 26.391 Laboratory Experiences in Early Childhood Education (3 hrs.)  
 Educ 26.507 Home, School, Community (3 hrs.)  
 Educ 26.509 Growth and Development of Young Children (3 hrs.)  
 Educ 26.521 Language Development and Reading in Early Childhood Education (3 hrs.)  
 Educ 26.547 The Teaching Process: Early Childhood Education (3 hrs.)  
 Educ 26.553 Perceptual and Cognitive Development of Young Children (3 hrs.)

b. Plan B. Master of Education without Thesis (Minimum 33 semester hours)

- 1) Required Courses (12 hours)
  - a) Edfs 27.501 Educational Ideas in Historical Perspective (3 hrs.)
  - b) Educ 26.573 Seminar in Early Childhood Education (3 hrs.)
  - c) Edpm 28.691 Introduction to Research in Education (3 hrs.)
  - d) Psyc 70.511 Developmental Psychology (3 hrs.)  
 (Formerly Human Growth and Development — Advanced)
- 2) Elective Courses (21 hours)
  - a) Twelve hours must be earned in departments other than education. Fewer than twelve hours may be earned in departments other than education with the approval of the Program Coordinator.
  - b) At least six hours must be selected from courses numbered 500-699.
  - c) At least nine hours must be selected from the following courses in Early Childhood Education:
 

Educ 26.381 Problems in Early Childhood Education (3 hrs.)  
 Educ 26.391 Laboratory Experiences in Early Childhood Education (3 hrs.)  
 Educ 26.507 Home, School, Community (3 hrs.)  
 Educ 26.509 Growth and Development of Young Children (3 hrs.)  
 Educ 26.521 Language Development and Reading in Early Childhood Education (3 hrs.)  
 Educ 26.547 The Teaching Process: Early Childhood Education (3 hrs.)  
 Educ 26.553 Perceptual and Cognitive Development of Young Children (3 hrs.)

## THE M. ED. IN ELEMENTARY EDUCATION

The Master of Education Degree Program in Elementary Education consists of required and elective courses combined into an individual plan which helps the student broaden and deepen his understandings, improve skills and insights related to elementary teaching, and pursue his particular professional goals. In required courses and experiences he is provided with opportunities to clarify philosophical and psychological bases of teaching-learning, to examine recent educational developments, and to grow in the spirit and skills of inquiry. Electives from education and non-education courses make possible a total program planned in relation to special needs and aspirations of the student.

### Requirements:

1. Requirements:
  - a. Certification as an elementary public school teacher  
 OR
  - b. Courses in the following areas (total: 12 hours):
    - 1) Educational Psychology or Human Growth and Development (3 hrs.)

- 2) Organization and Curriculum of the Elementary School (6hrs.)
- 3) Three hours chosen from the following areas:
  - a) History of Education
  - b) Foundations of Education

NOTE: These courses cannot be used to meet part of the formal elective requirements for the degree as defined below.

2. Course Requirements for the Degree. They may be met by completing either one of the following two plans of study:
  - a. Plan A. Master of Education with Thesis (Minimum 30 semester hours)
    - 1) Required Courses (12 hours)
      - a) Edfs 27.501 Educational Ideas in Historical Perspective (3 hrs.)
      - b) Edpm 28.691 Introduction to Research in Education (3 hrs.)
      - c) Edpm 28.699 Master of Education Thesis (3 hrs.)
      - d) Psyc 70.511 Developmental Psychology (3 hrs.) (Formerly Human Growth & Development — Advanced)
    - 2) Elective Courses (18 hours)
      - a) Twelve hours must be earned in departments other than education.
      - b) Six hours must be earned in education courses.
      - c) At least six hours must be selected from courses numbered 500-699.
  - b. Plan B. Master of Education without Thesis (Minimum 33 semester hours)
    - 1) Required Courses (12 hours)
      - a) Edfs 27.501 Educational Ideas in Historical Perspective (3 hrs.)
      - b) Edpm 28.691 Introduction to Research in Education (3 hrs.)
      - c) Educ 26.675 Seminar in Elementary Education (3 hrs.)
      - d) Psyc 70.511 Developmental Psychology (3 hrs.) (Formerly Human Growth & Development — Advanced)
    - 2) Elective Courses (21 hours)
      - a) Twelve or more hours must be earned in departments other than Education.
      - b) Six hours must be earned in education courses.
      - c) At least six hours must be selected from courses numbered 500-699.

## THE M. ED. IN GUIDANCE AND COUNSELING

The purpose of the Graduate Program in Guidance and Counseling is to develop professionally responsible individuals who are capable of facilitating a counselee's personal growth and development. He is trained to help his client to explore his educational, vocational and personal goals and seeks to facilitate the counselee's development of a meaningful course of action in these areas. The training program requires an understanding of psychological principles and reflects professional practices and responsibilities consistent with current research findings.

### Requirements:

1. Undergraduate Requirements in Psychology (total: 9 hours)  
The following courses or their equivalents are required of all candidates for admission to the program:
  - a. Introduction to Tests and Measurements (3 hrs.)
  - b. Introduction to and Analysis of Interpersonal Relationships (3 hrs.)
  - c. Systems and Techniques of Counseling Practice (3 hrs.)
2. Course Requirements for the Degree (Minimum 33 semester hours)
  - a. Required courses for all candidates (6 hours)
    - 1) Edfs 27.501 Educational Ideas in Historical Perspective (3 hrs.)
    - 2) Psyc 70.511 Developmental Psychology (3 hrs.) (Formerly Human Growth & Development—Advanced)



- b. For students whose goals are related to the elementary school age child, the following courses are required: (15 hours)
  - 1) Psyc 70.605 Principles of Guidance (3 hrs.)
  - 2) Psyc 70.611 Analysis of the Individual (3 hrs.)
  - 3) Psyc 70.645 Counseling Practicum I (3 hrs.)
  - 4) Psyc 70.635 Communication Media I (3 hrs.)
  - 5) Psyc 70.636 Communication Media II (3 hrs.)
- e. For students whose goals are related to the secondary school age child, the following courses are required: (15 hours)
  - 1) Psyc 70.605 Principles of Guidance (3 hrs.)
  - 2) Psyc 70.611 Analysis of the Individual (3 hrs.)
  - 3) Psyc 70.607 Occupational and Educational Information (3 hrs.)
  - 4) Psyc 70.645 Counseling Practicum I (3 hrs.)
  - 5) Psyc 70.646 Guidance Practicum II (3 hrs.)
- d. For students whose goals are related to counseling in non-educational facilities, the following courses are required: (6 hours)
  - 1) Psyc 70.645 Counseling Practicum I (3 hrs.)
  - 2) Psyc 70.646 Guidance Practicum II (3 hrs.)

## THE M. ED. IN MUSIC EDUCATION



The Master of Education Degree Program in Music Education incorporates the faculties, physical facilities, and course offerings of both Towson State College and Morgan State College. In addition to a beneficial interaction between the two institutions, this cooperative Master's Degree program offers the student broader and deeper understandings in realizing his professional goals. Most basic courses will be offered at both institutions; and, in such cases, textbooks and syllabi of comparable content will be used. However, certain required courses and certain elective courses will be offered on only one campus.

### Requirements:

1. Undergraduate Requirements in Education and Music
  - a. Holding a Bachelor's degree from an accredited college or university and certification as a public school music teacher.

OR

Hold a Bachelor's degree from an accredited college or university with a minimum of 49 credits in undergraduate music courses.

  - b. Grade point average of 3.0 or better in music courses
  - c. Be interviewed by the graduate coordinator
2. Course Requirements for the Degree. These may be met by completing one of the following two plans of study:
  - a. Plan A. Master of Education in Music Education with Thesis (Minimum 30 semester hours)
    - 1) Required Courses (12 hours)
 

T indicates course offered at Towson State College  
M indicates course offered at Morgan State College  
(consult Morgan State College Graduate Bulletin for course numbers)

      - a) T Edfs 27.501 Educational Ideas in Historical Perspective (3 hrs.)
      - b) T Psyc 70.511 Developmental Psychology (3 hrs.)
      - c) TM Musc 54.595 Research in Music and Music Education (3 hrs.)
      - d) TM Musc 54.501 Seminar in Current Trends in Music and Music Education (3 hrs.)
    - 2) Required Courses (3 hours) (Select one)
      - a) T Musc 54.562 Seminar in Choral Music (3 hrs.)
      - b) M Musc Seminar in Instrumental Music (3 hrs.)



- 3) T Muse 54.699 Thesis (3 hrs.)  
This requirement may be met in one of the following ways:
  - a) By writing a thesis dealing with a selected problem in Music or Music Education
  - b) By writing an original composition of major proportions and a paper concerning salient aspects of the composition
  - c) By presenting a full recital on the graduate level
- 4) Elective Courses (12 hours) (Selected from three areas)

Area I (3-6 hours)

- a) T Muse 54.403 Music of the Classical Period (3 hrs.)
- b) T Muse 54.404 Music of the Romantic Period (3 hrs.)
- c) T Muse 54.405 Contemporary Music (3 hrs.)
- d) T Muse 54.411 Survey of Opera (3 hrs.)
- e) T Muse 54.421 American Music (3 hrs.)
- f) M Muse Music Prior to 1600 (3 hrs.)
- g) M Muse Music of the Baroque Period (3 hrs.)
- h) M Muse Advanced Choral Literature (3 hrs.)
- i) M Muse Symphonic Literature (3 hrs.)
- j) M Muse Evolution of Afro-American Music (3 hrs.)
- k) M Muse Seminar in Non-Western Music (3 hrs.)

Area II (3-6 hours)

- a) TM Muse 54.435 Form and Analysis (3 hrs.)
- b) TM Muse 54.535 Advanced Choral and Instrumental Arranging (3 hrs.)
- c) TM Muse 54.415 Symphonic Literature (3 hrs.)
- d) T Muse 54.433 Advanced Theory (3 hrs.)
- e) T Muse 54.539 Music Composition (3 hrs.)
- f) T Muse 54.427 Jazz Arranging (3 hrs.)
- g) M Muse Advanced Orchestration (3 hrs.)
- h) M Muse Electronic Music (3 hrs.)

Area III (3-6 hours)

- a) TM Muse 54.407 Organization and Administration of Music Education (3 hrs.)
- b) TM Muse 54.471 through Muse 54.488 Private Instruction: Piano, Instrumental, Voice, Composition (1-3 hrs.)
- c) TM Muse 54.571 through Muse 54.588 Private Instruction: Piano, Instrumental, Voice, Composition (1-3 hrs.)
- d) T Muse 54.409-410 Teaching String Instruments (3 hrs.)
- e) T Muse 54.425 Advanced Percussion (3 hrs.)
- f) T Muse 54.429 Jazz Improvisation (3 hrs.)
- g) M Muse Opera Workshop (3 hrs.)
- h) M Muse Musical Theatre (3 hrs.)
- i) M Muse Vocal Pedagogy (3 hrs.)
- j) M Muse Piano Pedagogy (3 hrs.)
- k) M Muse Advanced Strings (3 hrs.)
- l) M Muse Advanced Brass (3 hrs.)
- m) M Muse Advanced Woodwinds (3 hrs.)
- n) M Muse The Art of Accompanying (3 hrs.)

- b. Plan B. Master of Education in Music Education without Thesis (Minimum 33 semester hours plus a research paper in one of the seminar courses)

- 1) Required Courses (15 hours)  
Same as above, but does not require Muse 54.699 Thesis
- 2) Elective Courses (18 hours)  
Area I As above (3-9 hours)  
Area II As above (3-9 hours)  
Area III As above (3-9 hours)



## THE M. ED. IN READING

The Master of Education Degree Program in Reading is a program offered cooperatively by Towson State College and Morgan State College. It is designed to offer experiences that will improve the teaching of reading at all levels from kindergarten through college. Specifically, the program seeks to offer courses in reading for teachers and administrators who are interested in improving their knowledge of reading and to prepare reading clinicians to teach developmental, corrective, and remedial reading. Furthermore, the program is designed to prepare reading specialists who will be capable of filling leadership roles in reading improvement programs in schools and clinics.

### Requirements:

1. Undergraduate Requirements in Education
  - a. Bachelor's degree from accredited college or university
2. Course Requirements for the Degree. (Minimum 33 semester hours)  
These requirements may be met by completing the following:
  - a. Required Reading Courses (12 hours)
    - T indicates course offered at Towson State College
    - M indicates course offered at Morgan State College
    - 1) T Educ 26.623 Methods and Materials in Teaching Reading in Elementary Schools (3 hrs.)
    - 2) T Educ 26.621 Reading Disabilities (3 hrs.)
    - 3) T Educ 26.625 Clinic Practicum in Reading (3 hrs.)
    - 4) T Educ 26.629 Seminar in Reading (3 hrs.)
    - M Ed 26.507 Seminar in Reading (3 hrs.)
  - b. Additional Required Courses (12 hours)
    - 1) T Edfs 27.501 Educational Ideas in Historical Perspective (3 hrs.)
    - 2) T Psyc 70.511 Developmental Psychology (3 hrs.)
    - 3) T Psyc 70.411 Tests and Measurements in Education (3 hrs.)
    - 4) T Psyc 70.540 Advanced Mental Hygiene (3 hrs.)
  - c. Elective Courses (9 hours)
    - 1) M Eng 30.561 Introduction to Linguistics (3 hrs.)
    - 2) M Eng 30.590 Phonetics of American English (3 hrs.)
    - 3) T Psyc 70.605 Principles of Guidance (3 hrs.)
    - 4) T Edpm 28.417 Children's Literature or  
T Edpm 28.418 Juvenile Literature (3 hrs.)
    - 5) M Ed 26.501 Supervision and Curriculum in Reading (3 hrs.)
    - 6) T Educ 26.627 Evaluation of Reading Research (3 hrs.)
    - 7) M Ed 26.508 Teaching Reading in the Secondary Schools (3 hrs.)
    - 8) T Engl 30.430 History of the English Language (3 hrs.)

NOTE 1: The "Clinic Practicum in Reading" will be a practicum course taught at Towson State College.

NOTE 2: The "Seminar in Reading" course will be one of the final courses in the sequence. This course will be taught at Morgan State College by professors from both Towson State College and Morgan State College. Consultants from other disciplines (medical, social, etc.) will also be invited to lecture to this advanced group.

NOTE 3: The elective courses may be taken at either Towson State College or Morgan State College with the permission of the director of the respective program.

NOTE 4: Other elective courses may be substituted with the permission of the director of the respective program.



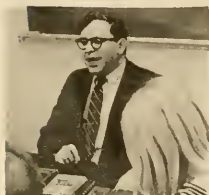


## THE M. ED. IN SECONDARY EDUCATION

The Master of Education Degree Program in Secondary Education is designed to help teachers develop competencies that will contribute to success in their educational responsibilities. The program provides advanced study in the general areas of education, psychology, and a teaching field. Opportunities are given for the graduate student to pursue certain areas of interest through provisions for elective courses.

### Requirements:

1. Undergraduate Requirements in Education
  - a. Certification as a secondary public school teacher  
OR
  - b. Courses in the following areas
    - 1) Educational Psychology or Human Growth and Development
    - 2) Principles and Methods in Secondary Education
    - 3) Three hours chosen from the following areas:
      - a) History of Education
      - b) Foundations of Education
      - c) Philosophy of Education
2. Course Requirements for the Degree. They may be met by completing either one of the following two plans of study:
  - a. Plan A. Master of Education with Thesis (Minimum 30 semester hours)
    - 1) Required Courses (12 hours)
      - a) Edfs 27.501 Educational Ideas in Historical Perspective (3 hrs.)
      - b) Edpm 28.691 Introduction to Research in Education (3 hrs.)
      - c) Edpm 28.699 Master of Education Thesis (3 hrs.)
      - d) Psyc 70.511 Developmental Psychology (3 hrs.)
    - 2) Elective Courses (18 hours)
      - a) Twelve or more hours must be earned in departments other than Education.
      - b) At least six hours must be selected from courses numbered 500-699.
    - 3) Students must present an area of specialization (within the 18 hours of elective courses specified above) in a non-Education field. A sequence of courses to meet this requirement must be approved by the student's adviser and recorded on the Program of Study form.
  - b. Plan B. Master of Education without Thesis (Minimum 33 hours)
    - 1) Required Courses (12 hours)
      - a) Edfs 27.501 Educational Ideas in Historical Perspective (3 hrs.)
      - b) Edpm 28.691 Introduction to Research in Education (3 hrs.)
      - c) Edfs 27.681 Seminar in Secondary Education (3 hrs.)
      - d) Psyc 70.511 Developmental Psychology (3 hrs.)  
(Formerly Human Growth & Development — Advanced)
    - 2) Elective Courses (21 hours)
      - a) Twelve or more hours must be earned in departments other than Education.
      - b) At least six hours must be selected from courses numbered 500-699.
    - 3) Students must present an area of specialization (within the 21 hours of elective courses specified above) in a non-Education field. A sequence of courses to meet this requirement must be approved by the student's adviser and recorded on the Program of Study form.



## THE M. ED. IN URBAN TEACHING

The Master of Education Degree Program in Urban Teaching is designed to prepare students who have had little or no professional training to teach in the inner city schools of large metropolitan areas such as Baltimore City. Program graduates will be fully certified to teach in the State of Maryland and in their area of specialization.

Future funding for the Urban Teaching program has not been assured and admission of additional students to the program has been terminated. Those students already in the program will be permitted to complete their degree requirements.

## Course Descriptions

Course descriptions for all 300-level through 600-level courses offered by the College and applicable to graduate students are listed in this section of the Bulletin.

Courses offered in any session are selected from the courses listed. Students should consult the course schedules issued by the Registrar's Office and the Evening and Summer School Office to determine the courses offered in a particular session.

Each department of the College has one or more code numbers and abbreviations for each general subject area (e.g., French in the Modern Language Department). The code abbreviations are shown in parentheses at the head of the course listings. The code numbers form a two digit Subject Classification Number, which precedes a three digit Course Classification Number, forming a five digit Course Number. Each course has a distinctive number.

Semesters of a year course whose numbers are separated by a hyphen are to be taken in sequence. When course numbers are separated by a comma, either semester may be taken independently of the other. Old course numbers appear in parentheses.

## Art

### ART COURSES (ART)

#### *Upper Division — Undergraduate and Graduate*

**12.314 THE ART OF ENAMELING ON METAL (2)** Design as applied to the art of enameling on copper and silver. The appreciation of master works of enameling from medieval to contemporary times. Studio work and lectures. Prerequisite: 12.103, 12.104

**12.318 (418) JEWELRY (2)** Investigation into aesthetics, history, function and design of jewelry. Lecture and directed studio problems in forming, joining and finishing of metallic and non-metallic materials. Prerequisite: 12.227 or consent of instructor.

**12.323 (423) PICASSO TO THE PRESENT (3)** Art History with emphasis on painting from 1900 to the present. Slide lectures, directed readings and museum trips. Prerequisites: 12.121, and 12.122.

**12.324 HENRY MOORE TO THE PRESENT (3)** Art History with emphasis on sculpture from 1900 to the present including new media and happenings. Directed readings and museum trips. Prerequisite: 12.121 and 12.122.

**12.325 FRANK LLOYD WRIGHT TO THE PRESENT (3)** Art History with emphasis on architecture from 1900 to the present including time-space concepts. Prerequisite: 12.121 and 12.122.

**12.326 FABRIC DESIGN (2)** Design problems executed with fabric. Instruction in tie dying, batik, block printing, silk screen on fabric. Prerequisite: 12.103, 12.104, or consent of instructor.

**12.328 WEAVING AND TEXTILE DESIGN (2)** Design problems executed with fibers and fabrics. Instruction in weaving, dyeing, printing, and stitchery. Aesthetic and historic considerations of the media. Prerequisite: 12.103, 12.104 or consent of instructor.

**12.339 METAL SCULPTURE (3)** Conceptual and technical problems involved in forging, forming, welding, soldering and finishing both ferrous and non-ferrous metals. Prerequisite: 12.240 or 12.241.

**12.340 (440) SCULPTURE: ADDITIVE PROCESSES (3)** Continued study problems from the figure with emphasis on the additive processes: clay, plasters, cements, expoxies, etc. Prerequisite: 12.240

**12.405 ART PRINCIPLES AND CRITICISM (2)** Principle concepts of art, theories of perception and aesthetics; application of theories to the interpretation of specific works of art. Prerequisite: 12.105 or 12.121 or 12.122.

**12.414-415 ADVANCED STUDIO (2-4, 2-4)** Practice for advanced students in their fields of special interest. Prerequisite: Courses in the field of special interest and permission of department chairman.

**12.431 ADVANCED CERAMICS (3)** Individually designed studio problems for advanced students in ceramics. Prerequisite: 300 level ceramics course.

**12.433 ADVANCED PAINTING (3)** Individually selected studio problems for advanced students in area of special interest. Prerequisite: 300 level painting course.

**12.440 ADVANCED SCULPTURE STUDIO (3)** Individually selected studio problems for advanced students in their area of special interest. Prerequisite: 300 level sculpture course.

**12.449 INTAGLIO PROCESS (3)** Personal expression in printmaking. Etching, drypoint, acquatint, engraving, and other intaglio processes. Prerequisite: 12.103, 12.111 or consent of instructor.

**12.451 LITHOGRAPHIC PROCESS (3)** Personal expression through printing from litho stones and plates. Prerequisite: 12.103, 12.111 or consent of instructor.

**12.471 ADVANCED ART EDUCATION (3)** Major art education, problems at all levels; materials and skills in relation to classroom needs. Prerequisite: 12.371 or equivalent.

**12.485 SEMINAR IN ART HISTORY (2)** Intensive analysis of a defined historical period of stylistic development in art. Directed readings in both period and contemporary sources. Discussions and museum tours. Prerequisite: 12.121 and 12.122 or consent of instructor.

### *Graduate Division*

**12.511 DRAWING (2)** Advanced problems in expressive draftsmanship. Prerequisite: 12.211 or consent of instructor.

**12.514-515 GRADUATE STUDIO (2-4, 2-4)** Independent work in field of special interest with weekly criticism by staff. Prerequisite: Undergraduate work in field of specialization, permission of department chairman.

**12.529 OIL PAINTING (3)** For students with previous experience in painting, consideration of current trends and styles; studio work, museum visits, lectures. Prerequisite: 12.329 or equivalent.

**12.530 WATERCOLOR (3)** Consideration of current trends and outstanding painters and styles. Studio work, museum visits, lectures. Prerequisite: 12.330 or consent of instructor.

**12.531 CERAMICS (3)** Advanced work in ceramic design and techniques of glazes, clay bodies, firing. Prerequisite: 12.331 or consent of instructor.

**12.540 SCULPTURE (3)** For students with previous experience in sculpture; consideration of current trends and styles; studio work, museum visits, lectures. Prerequisite: 12.340 or 12.241 and 12.339 or consent of instructor.

**12.551 GRAPHICS: INTAGLIO, RELIEF (2)** Studio work for artists with a basic knowledge of intaglio and/or relief processes. Aspects of mixed media explored. Prerequisite: 12.349 or 12.449

**12.553 GRAPHICS: LITHOGRAPHY, SERIGRAPHY (2)** Studio work for artists with a basic knowledge of lithography and/or serigraphy. Prerequisite: 12.347 or 12.451 or equivalent.

**12.595 RESEARCH IN ART AND ART EDUCATION (3)** Methods of research applicable to art and art education. Examination of recent research in this field. Students will explore areas of their choice. Prerequisite: Consent of instructor.

**12.697 SEMINAR IN ART EDUCATION (3)** Investigation of problems in art education and related fields; examination of theories of art and art education, discussion of forces affecting contemporary art education. Prerequisite: 12.595 and consent of instructor.

**12.699 ART THESIS: CREATIVE PROJECT (3)** If approved, student will pursue his project resulting in an exhibition of his work plus a paper defining the project's scope and philosophy. Prerequisite: 12.697 and consent of department.

# Audiovisual Communications

## AUDIOVISUAL COMMUNICATIONS COURSES (AVCO)

### *Upper Division — Undergraduate and Graduate*

**13.315 METHODS AND MATERIALS IN NEW EDUCATIONAL MEDIA (3)** Methods of vitalizing learning through the use of motion pictures, television, audio and video recording, field trips, transparencies, filmstrips, slides, and pictures, location of materials, operation of basic equipment and devices, preparation of basic tools of learning

**13.401 HISTORY OF EDUCATIONAL TECHNOLOGY AND MATERIALS (3)** An examination of the development of education technology with particular emphasis on the influence of government, state departments of education, institutions of higher learning, industry, and professional organizations on the various instructional media. Identification of the contributions of media leaders. LAB FEE \$5.00

**13.415 METHODS AND MATERIALS IN NEW EDUCATIONAL MEDIA (3)** Methods of vitalizing learning through the use of motion pictures, television, audio and video recording, field trips, transparencies, filmstrips, slides, and pictures, location of materials, operation of basic equipment and devices, preparation of basic tools of learning. LAB FEE \$5.00

**13.417 CLASSIFICATION AND CATALOGING OF AUDIOVISUAL MATERIALS (3)** Emphasis is placed on all types of classifying and cataloging non-print materials in accordance with the Dewey Decimal System. Other systems of classification and cataloging are surveyed. Rules for form of entry, factors determining choice and form of subject heading and descriptive cataloging are studied. This course is designed especially for librarians, media specialists, and teachers. Audiovisual equipment, devices, and materials are used to optimum advantage throughout. LAB FEE \$5.00

**13.431 INSTRUCTIONAL TELEVISION IN CLASSROOM EDUCATION (3)** Designed to provide students with understandings of the history, status, and goals of television as it is used in education. Topics covered include television systems, programming sources, legal ramifications, sources of funds, special projects, comparative costs, sources of data, and current research as applicable to public and non-public school classrooms only. LAB FEE \$5.00.

**13.433 INSTRUCTIONAL TELEVISION (3)** This course is concerned with ITV systems and terminology, the ITV movement, elements of production, classroom utilization of the ITV product, developing the ITV workshop, careers in ITV, and aspects of administration, philosophy, evaluation, and research in ITV. Class projects and some utilization of television equipment play a role in the course. LAB FEE \$5.00

**13.441 COMPUTER TECHNOLOGY AND UTILIZATION (3)** Exploratory course concerned with the rationale for, and the use of computers in various phases of education and related areas. The applications of computers are treated in areas such as instructional design (computer-assisted instruction), administrative and personnel services, and cost analysis. Techniques are examined for the organization, storage, processing and retrieval of data. Flow charting and keypunching experiences are included. (Course will not prepare students for positions as programmers). LAB FEE \$5.00.

**13.453 INTRODUCTION TO AUDIOVISUAL PHOTOGRAPHY (3)** Basic philosophy, scope, planning, and laboratory methods and techniques of preparing photographic audiovisual materials. Includes production of color and black and white slides, prints, and filmstrips. LAB FEE \$5.00

**13.455 GRAPHIC COMMUNICATIONS (3)** Language and design of graphics communications; principles from psychology and the visual arts, basic design principles; laboratory experiences such as layout, air brush techniques, "stat-king" utilizations, headliner and polaroid systems familiarization. LAB FEE \$5.00

**13.485 SEMINAR WORKSHOP IN EDUCATIONAL TECHNOLOGY (3)** Special problems in educational technology are treated including the philosophy, scope, planning, and techniques of the preparation and production of selected types of photographic and related graphic materials. Computer-assisted instruction, dial access and information and retrieval systems, simulators and trainers as well as significant developments in "hardware" and "software" are also stressed. Prerequisite: Three hours of audiovisual communications courses or departmental approval. LAB FEE \$5.00.

**13.487 THEORY AND TECHNIQUES OF LINEAR PROGRAMMING (3)** Acquaints students with philosophy and principles of linear programming; analysis and evaluation of commercially prepared and instructor-made programs; instructional utilization; current research, developments, and trends. An opportunity is provided for the student to develop a linear program in his own area of concentration. Prerequisite: Teaching experience and departmental approval. LAB FEE \$5.00.

**13.488 THEORY AND TECHNIQUES OF INTRINSIC PROGRAMMING (3)** Principles and philosophy of intrinsic programming as related to the Crowderian techniques of programming; analysis of development; consideration of psychological learning principles involved; relation to and utilization in computer-assisted instruction. An opportunity is afforded the student to develop an intrinsic program in his area of interest. Prerequisite: Teaching experience and course in linear programming LAB FEE \$5.00.

### *Graduate Division*

**13.501 ORGANIZATION, ADMINISTRATION AND SUPERVISION OF AUDIOVISUAL COMMUNICATIONS PROGRAM (3)** Organizational patterns, management procedures, and supervisory methods and techniques for audiovisual communications programs are considered. Major topics include: facilities, finance, selection, procurement, security and basic maintenance of equipment and materials, center operation; extension and in-service programs; assessments of systems and programs; and public relations. Prerequisite: Six hours of audiovisual communications courses and/or departmental approval. LAB FEE \$5.00.

**13.557 SPECIAL PROJECTS IN THE PREPARATION OF AUDIOVISUAL MATERIALS (3)** The theory, planning, and application of advanced methods and techniques in the preparation of audiovisual materials will be stressed. Student projects may involve aspects of photography, printing, holography, and related materials production. Field trips will also play an important role. Prerequisite: 13.453 or departmental approval. LAB FEE \$5.00.

**13.563 APPLIED PSYCHOLOGY OF LEARNING (3)** Includes Gagne's types of learning and recent psychological findings as applied to instructional communications in such areas as programmed instruction, sensory materials of learning, dial access and information retrieval systems, and instructional television. LAB FEE \$5.00.

**13.573 INSTRUCTIONAL AND FACILITY DESIGN (3)** A systems approach to the integration of hardware, software, and personnel into a single unit with a schedule of time and sequential phasing to ensure orderly relationships and interaction of human, technical, and environmental resources to fulfill instructional goals. Included are the application of systems design to mediated self-instruction as part of individually prescribed instruction as well as systems design to large group or multi-media instruction. Student projects include both instructional and facility designs for academic or training utilization. Prerequisite: Six hours of audiovisual communications courses and/or departmental approval. LAB FEE \$5.00.

**13.689 INTERNSHIP IN AUDIOVISUAL COMMUNICATIONS (3-6)** Practical experience in audiovisual communications is provided. The intern will work cooperatively under the direction of an appropriate College faculty member and appropriate audiovisual field supervisor. He will engage in all aspects of the school system program as related to audiovisual communications. In addition, he will become familiar, through visitation, with State and national audiovisual communications programs. Prerequisite: Six hours of audiovisual communications courses and departmental approval. LAB FEE \$5.00.

**13.695 THEORY AND RESEARCH IN AUDIOVISUAL COMMUNICATIONS (3)** Basic elements of communications theory are studied and applied to audiovisual communications. Relationships between the learning process and preception are reviewed in terms of communications. Selected communications systems are examined and research in audiovisual communications is analyzed and discussed. Prerequisite: Six hours of audiovisual communications courses or departmental approval. LAB FEE \$5.00.

## Biological Sciences

### *BIOLOGY COURSES (BIOL)*

#### *Upper Division — Undergraduate and Graduate*

**14.301 (401) FIELD NATURAL SCIENCE (4)** A study of various natural environments to determine their physical and biological components and to understand the relationship of these forms to one another and to man. Emphasis is on field observation. An average of three laboratory hours per week.



**14.303 LIFE SCIENCE FOR THE ELEMENTARY TEACHER (3)** Emphases placed on the conceptual approach to science teaching the modes of scientific inquiry and the utilization of living organisms in the classroom Prerequisite 14 101 May not be used toward MS degree in Biology

**14.304 (403) GENERAL ECOLOGY (3)** Basic principles of ecology Interrelationships between animals and plants and their natural environments, emphasizing the specific biomes available for study in Maryland Studies will be based on observations and data collected in the field An average of two laboratory hours per week

**14.310 (471) ENVIRONMENTAL CONSERVATION (4)** Basic conservation practices and problems Soil, water, forest, and wildlife resources with emphasis on interrelationships Specialists in various phases of local, state, and federal conservation work conduct or assist in the conduct of numerous field trips Average of two laboratory hours per week

**14.315 MEDICAL MICROBIOLOGY (4)** General microbiological techniques Pathogenesis of bacterial, viral, rickettsial and fungal diseases with emphasis on medically important bacteria Prerequisite 14 101 and 22 101, or consent of instructor May not be used toward MS degree in Biology

**14.318 (407) MICROBIOLOGY (4)** Principally a laboratory course investigating such groups of organisms as bacteria, protozoa, and lower plant forms, with emphasis on bacteria Average of three laboratory hours per week Prerequisite CHEM 22 101, 22 102, may be taken concurrently

**14.322 (421) MICROTECHNIQUE (3)** Techniques used in preparation of plant and animal tissues for histological examination Average of two laboratory hours per week Prerequisite CHEM 22 101, 22 102

**14.331 (205) FIELD AND SYSTEMATIC BOTANY (4)** Plant kingdom centered around taxonomy and ecology Methods of collection, identification, and preservation will be developed in the field and laboratory Average of three laboratory hours per week Prerequisite 14 105 or consent of instructor

**14.341 PHYCOLOGY (4)** The systematics, structure, ecology, physiology, and life-histories of algae. Laboratory will include methods of collection, culture, and experimental study of selected species Prerequisite 14 105

**14.345 (445) MYCOLOGY (4)** An introductory study of the morphology, classification, life histories, and economic applications of the fungi. Average of three laboratory hours per week Prerequisite, 14 105.

**14.351 (355) FIELD AND SYSTEMATIC VERTEBRATE ZOOLOGY (4)** Evolution, distribution, and definitive features of each class are studied comparatively Extensive field and laboratory work deals with morphologic, taxonomic, ecological, and behavioral features of selected vertebrate groups and species. Average of three laboratory hours per week

**14.353 (453) INVERTEBRATE ZOOLOGY (4)** Aquatic and terrestrial species of phyla from the Protozoa through the Echinodermata with special emphasis on local forms Insects are not considered Economic, ecological, and taxonomic considerations. Average of three laboratory hours per week.

**14.360 (422) HISTOLOGY (3)** Tissues of the vertebrate body Average of two laboratory hours per week. Prerequisite: 14 109

**14.371 (451) ANIMAL BEHAVIOR (3)** The classification and evolutionary aspects of behavior with emphasis on behavioral mechanisms An average of two laboratory hours per week

**14.381 (493) BIOLOGICAL LITERATURE (2)** Familiarization with the literature of biology through the preparation of papers requiring a knowledge of techniques for exploring the literature. Two one-hour lectures per week Prerequisite. At least 6 hours of biology.

**14.383 (391) CLASSICAL AND CONTEMPORARY READINGS IN THE BIOLOGICAL SCIENCES (2)** Historical development of biological concepts through the reading of classical and contemporary writings

**14.385 (489) SELECTED GENERAL PRINCIPLES IN BIOLOGY (3)** Current directions of biological investigations will be discussed together with a treatment of recent contributions to biological areas and principles Sufficient background will be given to provide coherence and understanding Three one-hour lectures. Prerequisite. Consent of instructor

**14.387 BIOLOGY IN SOCIETY (3)** Considerations given to the biological aspects of the environment, its concepts and problems and their effects upon the population Prerequisite: 14 101 May not be used toward MS degree in Biology

**14.395 (395) COURSE RESEARCH (1)** By invitation or with the consent of the instructor Research related to a specific course successfully completed by the student

**14.401 (411) GENETICS (4)** Heredity and variation, and their application to evolution and development. Gene action at the morphological, physiological and biochemical levels. Laboratory work entails use of *Drosophila*, corn, and *Neurospora* in the application of genetic principles. Average of two laboratory hours per week. Prerequisite: CHEM 22.102 and MATH 50.115 or consent of instructor.

**14.403 (412) ADVANCED GENETICS (3)** Emphasis on the molecular basis of gene action. Discussion of current work and methods related to the problem of gene structure, function, and mutation including the translation and regulation of genetic information. Prerequisite: 14.401.

**14.404 ECOLOGICAL TECHNIQUES (3)** A series of lectures and readings on standard investigative techniques employed by ecologists in the various specialty fields. An individual investigation, laboratory or field, using appropriate equipment is required.

**14.408 (409) CELL BIOLOGY (4)** A study of the molecular and morphological organization of the cell in relationship to functions of the cells or organoids. An average of three laboratory hours per week. Prerequisite: 14.105, 14.109, CHEM 22.231.

**14.411 (405) WILDLIFE BIOLOGY (4)** Important wildlife species with emphasis on aspects of research and management. Specific techniques and problems are studied in the field. Average of two hours per week in laboratory and field work. Prerequisite: Consent of instructor.

**14.429 (429) BIOANALYSIS (3)** Microscopic and biochemical methods used in determining major components and important contaminants of feeds, spices, stabilizers, adhesives, bakery materials, fats and oils, meat products, crystal mixtures, dairy products, etc. An average of two hours per week in laboratory and field work. Prerequisite: Consent of instructor.

**14.432 VASCULAR PLANT TAXONOMY (4)** A study of the history and principles of vascular plant systematics with laboratory time devoted to collection and identification of plants in the local flora. Prerequisite: 14.105 and 14.331.

**14.433 PLANT SPECIATION (3)** A study of such speciation phenomena as race isolation, hybridity, polyploidy, apomixis; and self-compatibility as they influence the evolution of new populations. Prerequisite: 14.331.

**14.436 (437) PLANT PHYSIOLOGY (4)** Life functions of plants as related to structure at all levels: cells, organs, and the complete organism. Consideration of the interaction of environmental and genetic factors on plant metabolism. Average of three laboratory hours per week. Prerequisite: 14.105 and CHEM 22.101, 22.102. CHEM 22.231 recommended.

**14.439 PLANT ANATOMY (4)** Origin and development of organs and tissue systems in vascular plants. Average of three laboratory hours per week. Prerequisite: 14.105.

**14.441 (441) PLANT PATHOLOGY (4)** A study of plant diseases, their symptoms, causal agents, etiology, epidemiology, prevention, and control. Average of three laboratory hours per week. Prerequisite: 14.105.

**14.456 (457) ORNITHOLOGY (4)** Lecture, laboratory and field course in bird identification, structure, behavior, ecology, and general economic relationships. Emphasis is on birds of the Baltimore area. A banding station is operated in conjunction with the course. Occasional field trips. Average of two laboratory hours per week.

**14.458 (459) MAMMALOLOGY (4)** The evolution, comparative morphology, systematics, and distribution of mammals. Representative life histories are considered. Average of two laboratory hours per week. Prerequisite: Consent of instructor.

**14.461 (481) ENTOMOLOGY (3)** Laboratory and field course in insects. Recognition of the more common orders, and a study of their structure, behavior, ecology, economic importance, and control. Average of two laboratory hours per week.

**14.463 (463) ANIMAL EMBRYOLOGY (4)** Developmental anatomy and the underlying principles involved in development. This last area will be approached from an experimental base. Average of three laboratory hours per week. Prerequisite: 14.109.

**14.465 (465) ANIMAL PHYSIOLOGY (4)** Functioning of animal organ systems, with emphasis on the vertebrate body. Average of three laboratory hours per week. Prerequisite: 14.109, CHEM 22.101, 22.102.

**14.481 (491) DIRECTED READING IN BIOLOGY (1-3)** Independent reading in an area selected by the student in consultation with the instructor. Prerequisite: A minimum of 10 hours in biology and consent of instructor.



**14.485, 14.486 (485) (486) SEMINAR: SPECIAL TOPICS IN BIOLOGY (1, 1)** Study and discussion of topics in a specialized area to be selected by instructor. Areas will vary from semester to semester. Prerequisite: A minimum of 10 semester hours in biology and consent of instructor.

**14.491 (496) INDEPENDENT RESEARCH IN BIOLOGY (2-3)** Independent investigation of a problem under the supervision of staff member culminating in a written presentation. Prerequisite: A minimum of 15 semester hours in biology and consent of instructor.

**14.495 (495) COURSE RESEARCH (1)** By invitation or with the consent of instructor. Research related to a specific course successfully completed by the student.

### *Graduate Division*

**14.501 (501) CURRENT TOPICS IN BIOLOGY (3)** Discussion of current topics in a specific area of biology. The area will vary each semester, therefore, this course may be taken more than once. Prerequisite: A suitable background in the area emphasized and consent of department.

**14.503 (503) ADVANCED CONCEPTS IN BIOLOGY (3)** An advanced study of current literature pertaining to significant concepts and principles in biology. Primarily for students planning a concentration in biology. Prerequisite: A basic background in biology or consent of department.

**14.505 PROBLEMS IN BIOLOGY (1-3)** Laboratory or literature research on a particular problem of interest to the student that does not pertain to his thesis. Credits to be arranged by consultation with the instructor.

**14.507 PHYSIOLOGICAL ANIMAL ECOLOGY (4)** A study of the physiological responses of animals to varying ecological conditions.

**14.509 AQUATIC BIOLOGY (4)** A study of freshwater and brackish water plants and animals of the local area with a field emphasis. Several representative habitats are compared, using various methods of collecting and identifying species of the fauna and flora.

**14.533 PLANT MORPHOGENESIS (4)** The morphological growth and development of plants in response to natural and artificial stimuli at the cellular, tissue, and organ level.

**14.534 PLANT DISTRIBUTION (3)** A study of the present distribution of the earth's major vegetational formations as related to environmental factors. Special emphasis is given to the terrestrial biomes of North America.

**14.535 ENVIRONMENTAL PLANT PHYSIOLOGY (3)** Physiological interactions between plants and environments at the organism level. Exchanges of physical and chemical factors such as energy, gases, water, pesticides, air and water pollutants, fertilizers, lime, radioactive materials.

**14.553 BIOLOGY OF TERRESTRIAL AND FRESHWATER INVERTEBRATES (4)** An advanced study of invertebrates including classification, physiology and various ecological parameters influencing distribution of local fauna in freshwater and terrestrial habitats. Parasites and insects are excluded.

**14.561 INSECT ECOLOGY (4)** A study of insect communities and populations emphasizing conditions of the environment that favor abundance of insects in various habitats. Field work involves examination of various aquatic and terrestrial habitats.

**14.601 GRADUATE RESEARCH (PLAN B) (3)** An individual research project is carried out under the guidance of a graduate faculty advisor.

**14.608 INVESTIGATIONS IN CELL PHYSIOLOGY (3)** Individual research on problems in cellular activity. Emphasis is directed toward the effect of various factors, including environmental agents, on cellular metabolism, membrane function, or enzyme activity.

**14.631 EXPERIMENTAL PLANT ECOLOGY (3)** The design and implementation of experimental procedures involving ecological plant relationships. Emphasis will be on the collection, interpretation, and presentation of data from laboratory and field experiments. The taxa to be investigated will be selected by the instructor and the student.

**14.697, 698 GRADUATE SEMINAR (1,1)** Student reports and discussions dealing with biological research. The subject matter will vary each semester. Students are required to enroll for two semesters.

**14.699 THESIS (6-9)** An original investigation to be pursued under the direction of one or more faculty members. Credit granted *only* after thesis has been accepted by the student's thesis committee.

# Economics and Political Science

## *ECONOMICS COURSES (ECON)*

### *Upper Division — Undergraduate and Graduate*

**24.401 (404) HISTORY OF ECONOMIC THOUGHT (3)** Development of economic theory, eighteenth and nineteenth century classical schools. Modern economic literature on price, investment and employment. Prerequisite: 24 102

**24.407 (407) BUSINESS CYCLES AND FORECASTING (3)** Changes in levels of income and output, tools and techniques for forecasting the future state of economic activities, and public proposals for controlling economic fluctuations. Prerequisite: 24 101, 24 102, 24 323

**24.485 (481) PROSEMINAR ON ECONOMIC ISSUES (3)** Research and writing of papers on an economic issue selected by the instructor. Prerequisite: 24 323, 24 335

**24.489 WORKSHOP ON ECONOMIC EDUCATION (3)** Designed to help teachers and school administrators gain a better understanding of the economic working of the society in which we live. Prerequisite: Consent of the instructor

## *POLITICAL SCIENCE COURSES (POSC)*

### *Upper Division — Undergraduate and Graduate*

**68.303 (303) THEORY OF INTERNATIONAL POLITICS (3)** The theories of mutual relations of states. Elements of national power; international politics as a struggle for power. Restraints upon the struggle for power. Prerequisite: HIST 40 264

**68.305 (305) URBAN GOVERNMENT AND POLITICS (3)** The political history of American cities from the eighteenth century through the recent reform movement. City charters, home rule, types of executives, political machines. The metropolitan area. Prerequisite: 68 103 or 68 101

**68.307 (315) CONTEMPORARY INTERNATIONAL POLITICS (3)** An examination of the conduct of international relations by the Western, the Communist, and the non-aligned blocs in the Post-World War period. Prerequisite: 68 303.

**68.337 (338) COMPARATIVE GOVERNMENT OF FOREIGN POWERS: THE WESTERN WORLD (3)** Constitutional and legal processes of England, France, Italy, and Germany. Some attention given to the small social-democratic states of Europe. Prerequisite: HIST 40 263, 40 264.

**68.338 (339) COMPARATIVE GOVERNMENT OF FOREIGN POWERS: RUSSIA AND THE EAST (3)** Constitutional and legal processes of Russia, Japan, China and other Eastern powers. Prerequisite: HIST 40 263, 40 264

**68.341 AFRICAN GOVERNMENT AND POLITICS (3)** An examination of the rise of African nationalism and the emergence of new states in Africa. Attention is directed to the influence of colonial rule and traditional political institutions on the development of party politics, patterns of government, and Pan-African idea. A trend towards the military rule, political problems of the independent Africa, and the efforts of each country to build a strong and viable political system are emphasized. Prerequisite: Any Political Science course or consent of instructor.

**68.351 THE GOVERNMENT AND POLITICS OF LATIN AMERICA (3)**

**68.355 THE LATIN AMERICAN POLICY OF THE UNITED STATES (2-3)** Diplomatic and cultural relations between the United States and Latin America. The Pan-American Movement, Implementation of the Monroe Doctrine, and the Advent of the Good Neighbor Policy. Prerequisite: 40 145, 40 146.

**60.359 POLITICAL AND SOCIAL ASPECTS OF REVOLUTION (3)** Nature and function of violence and revolution in modern social systems

**68.361 POLITICAL BEHAVIOR (3)** Introduction to the substantive theory and methodology of behavioral analysis. Topics include voting behavior, elite behavior, and an analysis of types of political conflict. Prerequisite: POSC 68 101 or consent of instructor

**68.375 (376) PUBLIC ADMINISTRATION (3)** Administration as a central element of contemporary society, with special reference to the problems of government organization, control, personnel, finance, and public relations. Prerequisite: 68 103

**68.401 (301) INTRODUCTION TO LAW (3)** The legal processes in the United States. This course is designed primarily for the liberal art student. Prerequisite: One course in introductory political science.

**68.417 (417) AMERICAN POLITICAL PARTIES (2)** Origin and development of the American two-party system. The activities of pressure groups and organizations, and their effects upon the party system. Prerequisite: 68 103, or HIST 40 145, 40 146

**68.418 (418) CONSTITUTIONAL LAW (3)** A study of the constitution of the United States based on leading judicial decisions interpreting the constitution and statutes from 1789 to the present. Prerequisite: 68 103.

**68.427 (426) POLITICAL THEORY (3)** Political thought in the West from the Greeks to the end of the sixteenth century. Prerequisite: HIST 40 263, 40 264 or consent of instructor.

**68.428 (427) POLITICAL THEORY (3)** Political philosophers and their writings since the sixteenth century. Attention given to the conflict of ideologies in the twentieth century. Prerequisite: HIST 40 263, 40 264 or consent of instructor.

**68.430 POLITICAL IDEAS OF SOCIALISM AND COMMUNISM (3)** Selected topics in the political theory of socialism and communism including socialism and the ancient regimes, socialism and political organization, Russian, Leninist and Stalinist theory, and socialist ideas in the post cold war period. Prerequisite: Hist. 40.263, 40.264, 68.101, 68.428, or consent of instructor

**68.432 (432) UNITED STATES-SOVIET RELATIONS (3)** Diplomatic, cultural, and economic relations between the U.S.S.R. and the U.S. Emphasis on the period since 1933 with a careful study of the effects of the Second World War upon the balance of power. Prerequisite: HIST 40.263, 40.264, 40.145, and 40.146.

**68.435 (435) AFRICA IN WORLD POLITICS (3)** The role of African nations in the nuclear age, and their efforts to achieve unity. Prerequisite: HIST 40.264, or consent of instructor.

**68.439 (440) UNITED STATES FOREIGN POLICY IN SOUTHEAST ASIA (3)** American foreign policy in Southeast Asia in the Post World War II period. Prerequisite: 68.303, and HIST 40.145, 40.146.

**68.441 (441) CONTEMPORARY UNITED STATES - WESTERN EUROPEAN RELATIONS (3)** Emphasis will be on NATO, the European Economic Community, and the Anglo-American efforts to create an Atlantic partnership between Europe and the United States. Prerequisite: HIST 40.264 and 40.146.

**68.445 UNITED STATES FOREIGN POLICY IN SOUTH ASIA (3)** A discussion of American foreign policy in South Asia mainly since 1945. Emphasis will be on India and Pakistan. Prerequisite: 68.303, HIST 40.312, or consent of instructor.

**68.450 GROUP POLITICS AND PUBLIC OPINION (3)** The role of pressure groups and public opinion in the American political system. Prerequisite: Consent of instructor.

**68.455-456 (455-456) INTERNATIONAL LAW AND ORGANIZATION (3, 3)** An examination of the theories and the development of international law up to the present. The character of the modern state system, the role of international organizations, and international law and resort to force. Prerequisite: 68.303, and HIST 40.264

**68.461 RESEARCH METHODS IN POLITICAL BEHAVIOR (3)** Major emphasis on the use of quantitative techniques in political research. Topics include survey research, the use of computers, and statistical analysis. Prerequisite: 68.101, 68.361, or consent of instructor.

**68.465 EDITORIAL WORK - TOWSON STATE JOURNAL OF INTERNATIONAL AFFAIRS (1)** Members of the Editorial Board of the Towson State Journal of International Affairs prepare the issues of that Journal under the supervision of the Faculty Advisors. Prerequisite: Approval of faculty advisors of Journal.

**68.481 (481) INDEPENDENT STUDY (3)** Individual and supervised study in selected areas of political science. Prerequisite: Eighteen hours of political science, or consent of the instructor.

**68.487 (482) SEMINAR IN POLITICAL SCIENCE (3)** Various methods and techniques of research in political science, culminating in the preparation of a seminar paper. Prerequisite: Eighteen semester hours in political science, or consent of instructor.

**68.491 (490) SEMINAR IN CONTEMPORARY UNITED STATES FOREIGN POLICY (3)** An examination of the nature, basis, and instruments of American foreign policy in the contemporary age. The formulation, control, and execution of American foreign policy will also be noted. Prerequisites: 68.303, and HIST 40.145, 40.146

**68.497 PRACTICUM IN POLITICS (3)** This course deals with practical working of political and governmental institutions. The flexibility in time and credit arrangements will allow a variety of political practice (or internships) in which students can combine observation of "politics in action" with discussions and generalization of the observed.

## Education

### *EARLY CHILDHOOD EDUCATION COURSES (EDUC)*

#### *Upper Division — Undergraduate and Graduate*

**26.381 (421, 422) PROBLEMS IN EARLY CHILDHOOD EDUCATION (3)** Research findings used as a basis for program planning in nursery school, kindergarten and primary grades; current trends and issues are considered. Prerequisite: Student teaching and/or teaching experience in preschool or primary grades; consent of Department of Education.

**26.391 (423) LABORATORY EXPERIENCES IN EARLY CHILDHOOD (3)** Classroom experiences with children in preschool and primary grades in a variety of teaching-learning situations. Analysis of observations in light of current research. Concurrent with 26.381. Summers only. Prerequisite: Consent of Department of Education.

**26.490 EARLY CHILDHOOD EDUCATION SUMMER STUDIES ABROAD (1-6)** A field study, including cultural tours in selected foreign countries, of current Early Childhood Education programs, facilities and trends. Lectures, observations and personal interactions. Required participation in planned educational activities and a follow-up paper. Prerequisite: Consent of department chairman. Maximum of three credits may be utilized toward a degree program.

**26.494 TRAVEL AND STUDY-ECE (1)** A field study, including cultural tours in selected foreign countries, of current Early Childhood Education programs, facilities, and trends. Lectures, observations, and personal interactions. Required participation in planned educational activities and a follow-up paper. Prerequisite: Junior, Senior, Graduate standing, or consent of the departmental chairman.

#### *Graduate Division*

**26.507 (551) HOME, SCHOOL, COMMUNITY (3)** The interaction between home and school in educational programs for young children; survey and evaluation of various techniques of conferencing and working with parents; study of various agencies contributing to the well-being of young children at home and at school. Prerequisite: A course in sociology and consent of Department of Education.

**26.509 (552) GROWTH AND DEVELOPMENT OF YOUNG CHILDREN (3)** Study of findings of current research in growth and development of young children, methods of studying and evaluating behavior; implications of case study data for curriculum improvement. Prerequisite: PSYC 70.511 and consent of the Department of Education.

**26.521 (550) LANGUAGE DEVELOPMENT AND READING IN EARLY CHILDHOOD EDUCATION (3)** Emphasis on contemporary issues: advanced interpretative and critical evaluations of research in language development and reading instruction in light of basic needs, developmental levels and individual differences in young children. Prerequisite: Undergraduate course in reading and consent of Department of Education.

**26.547 THE TEACHING PROCESS: EARLY CHILDHOOD EDUCATION (3)** Study of recent theories, methods, and findings in research on the teaching process. Analysis of teaching behaviors and exploration of teaching strategies in educational programs for young children. Prerequisite: Teaching experience, PSYC 70.511 or EDFS 27.501, and consent of Department of Education.



**26.553 (553) PERCEPTUAL AND COGNITIVE DEVELOPMENT OF YOUNG CHILDREN (3)** Survey of significant research affecting the theory and programs of education for children ages three to eight years. Prerequisite: PSYC 70.511 and/or 26.509 and consent of Department of Education.

**26.573 (530) SEMINAR IN EARLY CHILDHOOD EDUCATION (3)** Seminar approach to current practices and trends in curriculum, materials, methods, and organization of educational programs for children ages three through eight years. A seminar paper is required. Prerequisite: Nine hours of graduate work in early childhood education.

**26.599 MASTER'S THESIS IN EARLY CHILDHOOD EDUCATION.**

### *ELEMENTARY EDUCATION COURSES (EDUC)*

#### *Upper Division — Undergraduate and Graduate*

**26.405 CREATIVE EXPRESSION (6)** Experiences in planning and teaching an integrated program of art, music and physical education activities at the elementary level. Prerequisite: Art - 2 or more hours; Music - 54.233; Phys Ed - 60.101, 60.102.

**26.411 CHILD AND THE ELEMENTARY SCHOOL CURRICULUM (3)** Direct experience with the child, the school and community, and the curriculum of the modern elementary school is interpreted in terms of the roles and functions of the public school in a democratic society. Prerequisite: 70.101, 70.201.

**26.417 CHILDREN'S LITERATURE (3)** Examination of children's books; study of content and form.

**26.419 (26.418) JUVENILE LITERATURE (3)** Examination of juvenile literature apart from textbooks; criteria for this literature; study of content and form.

**26.425 (409) CORRECTIVE READING (2-6)** The psychology of reading; methods, principals, techniques, and materials for the classroom teacher in meeting typical learning patterns. Experience in a laboratory center for the development of skill in analysis and correction of reading disabilities. Prerequisite: 26.497 and 26.429 or 26.427, or consent of instructor.

**26.427 (453) READING AND OTHER LANGUAGE ARTS IN THE ELEMENTARY SCHOOL-ADVANCED (2-3)** Application of theory and research to the teaching of reading and the other language arts. Prerequisite: 26.423.

**26.429 (454) METHODS AND PRINCIPLES OF READING INSTRUCTION — ADVANCED (2-3)** Principles involved in building a developmental reading program; prevention of reading difficulties; methods of remedial reading. Prerequisite: 26.423.

**26.441 CURRICULUM DEVELOPMENT IN THE ELEMENTARY SCHOOL (2)** The child and his curriculum. The teacher's role in curriculum as a process. Principles and philosophies of curriculum development, Objectives, practices, materials, and evaluation trends. Prerequisite: 26.497.

#### *Graduate Division*

**26.616 (516) THE ADMINISTRATION OF THE ELEMENTARY SCHOOL (3)** Analysis of principles of elementary school administration, the administrator's roles and responsibilities, human relations and personnel management, public relations, management of the school unit and curriculum. Prerequisite: Three years teaching experience, teacher certification and nine hours of graduate credit.

**26.621 (517) READING DISABILITIES (3)** Causes of reading disabilities; observation and interview procedures; standard and informal tests; report writing, materials and methods of instruction. Prerequisite: 26.421, or 26.423 or consent of instructor.

**26.623 (541) METHODS AND MATERIALS IN TEACHING READING IN THE ELEMENTARY SCHOOL (3)** covers trends in methods, materials, and individualized reading designs essential to the organization and administration of a functional reading program. Prerequisite: 26.421, or 26.423 or consent of instructor.

**26.625 (583) CLINIC PRACTICUM IN READING (3)** A clinical or laboratory experience. Students diagnose and treat reading disability cases under the supervision of the directors of the reading program. Prerequisite: 26.621 and 26.623.

**26.627 (597) EVALUATION OF READING RESEARCH (3)** The tools of research and experimentation. The emphasis will be on past and present research relevant to reading. Prerequisite: Course in Tests and Measurements or Statistics and consent of instructor.



**26.629 (571) SEMINAR IN READING (3)** An advanced course to familiarize the student with interdisciplinary aspects of the reading process. The highlight of the course will be the team teaching aspect. Consultants such as psychologists, pediatricians, optometrists, guidance teachers, etc. will play an important role in this course. Prerequisite: 26.621 and 26.623.

**26.647 THE TEACHING PROCESS: ELEMENTARY EDUCATION (3)** Study of recent theories, methods, and findings in research on the teaching process. Analysis of teaching strategies in educational programs for elementary children. Prerequisite: Teaching experience, and PSYC 70.511 or 27.501, and consent of Department of Education.

**26.665 (525) CURRICULUM DEVELOPMENT IN THE ELEMENTARY SCHOOL (3)** History of curriculum development in the elementary school; basic considerations affecting curriculum development; patterns of organization; objectives, practices, and evaluation; problems in curriculum development. Prerequisite: Consent of instructor.

**26.675 (575) SEMINAR IN ELEMENTARY EDUCATION (3)** Seminar approach to current practices and trends in elementary school curriculum, materials, methods, and organization. A seminar paper is required. Prerequisite: Nine hours of graduate work in education including 26.691.

**26.681 (581) SEMINAR IN ELEMENTARY SUPERVISION (3)** Role of the supervisor; supervisory practices and techniques. Students may concentrate in areas related to their professional interests. Prerequisite: Nine hours of graduate work in education.

**26.699 MASTER'S THESIS IN ELEMENTARY EDUCATION.**

## **SECONDARY EDUCATION COURSES (EDFS)**

### *Upper Division — Undergraduate and Graduate*

**27.358 TEACHING COMPOSITION IN THE SECONDARY SCHOOL (3)** This course includes: grammar vocabularies, motivational techniques, evaluation, student publications, varieties of purposes for writing, oral composition, laboratory experiences and individual problem analysis. Prerequisite: 27.357 or consent of instructor.

**27.359 CONTEMPORARY MATERIALS FOR TEACHING ENGLISH IN SECONDARY SCHOOLS (2-3)** Application of new materials designed for teaching the language arts in the secondary school including records, films, SRA materials, programmed learning, and television.

**27.360 (26.365) TEACHING READING IN THE SECONDARY SCHOOL (3)** Meets three hours per week for entire semester. General developmental reading skills; identification, diagnosis and remediation of reading problems; comprehension, vocabulary building, word-study skills.

**27.441 (26.411) THE JUNIOR HIGH SCHOOL (3)** Principles, purposes, functions, and characteristics of the Junior High School, with emphasis upon its organization and curriculum. Prerequisite: 27.341.

**27.443 (26.415) THE MIDDLE SCHOOL (3)** Functions and characteristics of the middle school; emphasis on nature of transcendent youth (ages 10-14), curriculum, and organizational patterns. Prerequisite: 26.342, or 26.461, or 27.341, or 28.319.

**27.445 TEACHING IN THE MIDDLE SCHOOL (3)** Instruction in the methods required for teaching in the middle school. An individualized program of instruction, readings, observations and teaching experiences will be planned for each student. Prerequisite: Teacher experience, student teaching, or concurrent with student teaching.

### *Graduate Division*

**27.641 (26.565) CURRICULUM DEVELOPMENT IN THE SECONDARY SCHOOL (3)** Principles and philosophies of curriculum development; objectives, practices and evaluation trends; the teacher's role. Prerequisite: Consent of instructor.

**27.643 (26.515) THE ADMINISTRATION OF THE SECONDARY SCHOOL (3)** Analysis of principles of school administration, the administrator's roles and responsibilities, human relations and personnel management, public relations, management of the school unit and curriculum. Prerequisite: Three years teaching experience, teacher certification and nine hours of graduate credit.

**27.647 THE TEACHING PROCESS: SECONDARY EDUCATION (3)** Study of recent theories, methods, and findings in research on the teaching process. Analysis of teaching behaviors and exploration of teaching strategies in educational programs for Secondary students. Prerequisite: Teaching experience, and PSYC 70.511 or 27.501, and consent of Department of Education.

**27.679 SEMINAR IN THE TEACHING OF SECONDARY SCHOOL SOCIAL STUDIES (3)** A seminar approach to current research, trends, practices, issues, content, materials, and problems in the teaching of contemporary secondary school social studies. Individual reading and research will be pursued on selected topics culminating in a seminar paper. Prerequisite: Consent of instructor, or prior teaching experience in social studies.

**27.681 (26.577) SEMINAR IN SECONDARY EDUCATION (3)** Seminar approach to current practices and trends in secondary curriculum, materials, methods, and organization. A seminar paper is required. Prerequisite: Nine hours of graduate work in the field of education.

**27.683 (26.582) SEMINAR IN SECONDARY SUPERVISION (3)** Role of the supervisor; supervisory practices and techniques. Students may concentrate in areas related to their professional interests. Prerequisite: Nine hours of graduate work in the field of education including 28.691.

#### **27.699 MASTER'S THESIS IN SECONDARY EDUCATION**

### **FOUNDATIONS COURSES (EDFS)**

#### *Upper Division — Undergraduate and Graduate*

**27.301 (26.303) HISTORY OF EDUCATION (3)** Major developments, personalities, and movements in the evolution of education.

**27.401 (26.410) FOUNDATIONS OF EDUCATION (2-3)** Sociological, philosophical, psychological, and historical foundations of western education. Perspectives in these areas as they relate to current educational issues and practices. Three semester hours credit upon consent of department chairman. Prerequisite: Student teaching.

**27.403 (26.404) COMPARATIVE EDUCATION (3)** A study of patterns of education in different cultural setting with implications for the student of American education. Emphasis on cross-cultural, political, economic and social aspects of education. Prerequisite: 27.401 or equivalent.

**27.405 (26.452) PHILOSOPHY OF EDUCATION (3)** Philosophic dimensions of the teaching learning process, as discriminated and discussed by major philosophers and educational philosophers.

**27.407 (26.466) CONTEMPORARY ISSUES IN EDUCATION (3)** Seminar approach to current issues in education. Prerequisite: Student teaching or equivalent.

#### *Graduate Division*

**27.501 (26.503) EDUCATIONAL IDEAS IN HISTORICAL PERSPECTIVE (3)** Current trends and issues in education as reflecting and influencing the social, economic, and political forces in our cultural heritage.

### **ADULT EDUCATION COURSES (EDFS)**

#### *Upper Division—Undergraduate and Graduate*

**27.485 ADULT EDUCATION (3)** Introduction to the historical and philosophical evolution of adult education in the United States in relationship to current aims, types of programs, and issues. Prerequisite: Consent of instructor.

**27.487 TEACHING THE ADULT LEARNER (3)** Teaching-learning activities at various levels of adult education. The needs, motivation, and abilities of the adult learner are stressed. Prerequisite: Consent of instructor.

**27.489 PRINCIPLES OF READING INSTRUCTION FOR ADULTS (3)** Causes of adult reading disabilities, evaluation relevant to reading disabilities, and the methods and materials employed in the remediation process. Prerequisite: Consent of instructor.

### **ADDITIONAL EDUCATION COURSES (EDPM)**

#### *Upper Division—Undergraduate and Graduate*

**28.401 (26.463) GUIDANCE IN THE PUBLIC SCHOOL (2-3)** Scope and function of a guidance program; the role of the classroom teacher in guidance.

**28.403 (26.469) EDUCATIONAL TESTS AND MEASUREMENTS (3)** Problems in measurement; principles underlying choice of test instruments; survey of test literature; dealing with test data, constellation and interpretation of tests. Not to open to those who have had 28.315.

**28.405 (26.464) RECENT TRENDS IN TEACHING (3)** Emerging concepts of teaching and organization for instruction. Prerequisite: Student teaching or equivalent.

**28.409 (26.483) FIELD STUDIES OF THE CHILD AND HIS COMMUNITY (2)** Planning and working with groups of children in approved social agencies or making extensive studies of recreational and non-recreational social agencies. Class discussions and field trips.

**28.415 EDUCATIONAL STATISTICS (3)** Designed as a practical course in statistics for students in education. Emphasis is upon educational applications of descriptive statistics, including central tendency, variability, and association. Prerequisite: MATH 50.204, 50.205, or equivalent.

**28.495 INTERDISCIPLINARY SEMINAR IN PHILOSOPHY AND EDUCATION (3)** An interdisciplinary seminar with two aspects. (1) Current thought in the philosophy of a variety of academic fields. (2) Their implications for the broad field of education. Concentration will be upon development in the present century.

### *Graduate Division*

**28.511 (26.511) SUPERVISION OF STUDENT TEACHING (3)** An analysis of the roles of the cooperating teacher, college supervisor, and student teacher; current practices, issues, problems, trends and evaluation in laboratory experiences, current research. Prerequisite: Teaching experience.

**28.517 SCHOOL LAW (3)** A study of the legal framework within which the public and non-public schools function. The course will give attention to the legal relationships among federal, state, and local governments; the legal status of school districts, boards of education, and school administrators; the legal status of non-public schools, and the law regarding all facets of the school program, staff, and pupils. Prerequisite: 27.501.

**28.601 SEMINAR IN REPRESENTATIVE AMERICAN EDUCATORS (3)** A biographical approach to the development of American Education through selected groups of American educators. Contributions have significantly shaped its form and substance from the colonial period to the present. Prerequisite: EDUC 501

### *GRADUATE COURSES IN RESEARCH (EDPM)*

**28.691 (26.595) INTRODUCTION TO RESEARCH IN EDUCATION (3)** Research as a method for solving problems. Contributions of research to education. Prerequisite: Undergraduate course in Tests and Measurements, or Elementary Statistics, or consent of instructor.

### *URBAN EDUCATION PROGRAM — PROJECT MISSION*

#### *URBAN EDUCATION COURSES (EDPM)*

#### *Upper Division — Undergraduate and Graduate*

**28.371-372 PSYCHOLOGICAL FOUNDATION I, II (1,1)** Psychological understanding needed for guiding the learning of disadvantaged children and youth. The values, attitudes, and aspirations as well as the cognitive learning style of disadvantaged students.

**28.373-374 SOCIOLOGICAL FOUNDATIONS OF URBAN EDUCATION I,II (1,1)** Introduction to concepts and principles related to the social foundation in an urban environment. Planned to help students to relate themselves positively and functionally to the social aspects of education and to integrate these into their professional skills and attitudes.

**28.375-376 (486-487) URBAN FIELD EXPERIENCES (2,2)** This course provides first hand experiences relating theory and practice in Urban Education and Communication Skills.

**28.377-378 (488-489) COMMUNICATION SKILLS (1,2)** Speech, semantics, linguistics and sentence structure, a communication model, and psychological aspects of communication.

**28.381-382 (490-491) METHODS AND MATERIALS IN ELEMENTARY EDUCATION (3, 3)** Focus on reading, diagnosis of disabilities, special concerns for the disadvantaged child, remediation techniques. Pedagogy, planning and organizing, presentation, evaluation, use of realia, and teaching the language arts.

**28.383-384 (492-493) METHODS AND MATERIALS IN SOCIAL STUDIES IN THE SECONDARY SCHOOLS (3, 3)** Teaching social studies at the junior high level to disadvantaged youth. In addition, attention is given to such topics as: the curricular organization of social studies, developing social studies skills, instructional planning, social studies materials and resources, and evaluation in the social studies.

**28.385-386 (494-495) METHODS AND MATERIALS - ENGLISH (3, 3)** Methods and materials which may be used in directing the language and literary experiences of disadvantaged adolescents. Emphasis is placed on creativity and imagination in developing new approaches to meeting the classroom needs of the disadvantaged. The course gives particular attention to techniques for developing skills in reading and oral communication.

**28.461 LANGUAGE AND THE URBAN CHILD (3)** Language theory in reference to psychological, sociological, and cultural effects in the classroom will be studied. Special emphasis will be given to the analysis of dialects and "standard" and "non-standard" speech patterns as well as practical classroom applications. Prerequisite: Teaching or student teaching experience, or consent of instructor.

**28.471-472 (496-497) PROBLEMS IN INSTRUCTIONAL AID AND RESOURCES (1, 1)** Opportunities will be provided for the student to become acquainted with all types of instructional materials. As new instructional aids become available, students will examine and evaluate their usefulness in the instructional programs of educationally deprived children. In addition, resource personnel of the Baltimore City Department of Education, the cooperating colleges, and the community will be brought in to discuss their contributions to the improvement of the school programs of the disadvantaged child.

**28.477-478 (498-499) INTERNSHIP IN TEACHING (6, 6)**

### *Graduate Division*

**28.571-572 (28.501) TEACHING THE DISADVANTAGED CHILD (3)** Concern will be given to planning, organizing, and providing of appropriate curriculum experiences for pupils in urban schools. Emphasis will be placed on those methods and materials which are especially appropriate to meeting the needs of children attending schools in disadvantaged communities.

**28.575 (28.515) BACKGROUNDS IN URBAN EDUCATION (3)** This course aims to acquaint teachers with sociological factors, family organization and disorganization, and educational deprivation of children living in a crowded and urbanized society. Attention will be given to the special learning styles of these pupils.

**28.577 (28.571) SEMINAR IN URBAN EDUCATION (3)** This course is designed as an advanced course for those who have had previous courses in this field and who are engaged in working with children who are educationally disadvantaged. It will focus on anthropological, ecological and psychological research related to the problems of the disadvantaged learner.

### *WORKSHOPS*

**28.467 (26.487) TEAM TEACHING WORKSHOP (3)** Conducted to assist teachers who are actively engaged in team teaching or will be participating as members of a team in the future.

### *SAFETY AND DRIVER EDUCATION COURSES (EDPM)*

#### *Upper Division — Undergraduate and Graduate*

**28.430 (26.471) GENERAL SAFETY EDUCATION (3)** Includes a survey of the history and philosophy of the safety education movement, need for safety education, aims and objectives, accident causation and prevention, and the role of education in eliminating environmental hazards and reducing avoidable human error.

**28.431 (26.472) DRIVER AND TRAFFIC SAFETY EDUCATION (3)** History and philosophy of automobile and highway safety engineering, U.S. and International traffic controls, traffic laws and regulations, critical analysis of traffic accidents and causation, and attitude factors. (May be taken concurrently with 28.432.)

**28.432 (26.473) METHODS OF TEACHING IN DRIVER EDUCATION AND SAFETY (3)** Specialized techniques for safety and driving instruction, including A-V aids, psycho-physical testing and evaluation, programmed instruction, multiple-car facility, on-street instruction, detonator demonstration and applications. (May be taken concurrently with 28.431.)

**28.433 (26.494) DIFF. STUDENT TEACHING IN DRIVER EDUCATION (3)** Supervised student teaching in Driver Education, including classroom and in-car, and utilization and planning for multiple-car facility. (May be taken concurrently with 28.434.) Prerequisite: 28.431 and 28.432; Maryland license and 3 years driving experience with good record.



**28.434 (26.494) DIFF. STUDENT TEACHING IN DRIVER SIMULATOR (3)** Supervised student teaching using driving simulators. Theory, mechanics, techniques, utilization and evaluation of driving simulators. (May be taken concurrently with 28.433.) Prerequisite: 28.431 and 28.432; Maryland license and 3 years driving experience with good record.

**28.435 PROGRAMMED INSTRUCTION FOR DRIVER EDUCATION (2)** Acquaints students with philosophies and principles of programmed instruction. Analysis and evaluation of commercial programs and teacher-made programs, instructional utilization, current research and trends, direct application of programmed instruction to Driver Education are included. Prerequisite: 15 credits in approved Safety and Driver Education courses and/or approval of Director

**28.436 MULTI-MEDIA TECHNIQUES FOR DRIVER EDUCATION (2)** A laboratory approach to the utilization and planning of multi-media instruction of Driver Education. Principles and theory of multi-media communications; planning use; implementation; production of materials; survey of literature and current trends in multi-media instruction as related directly to Driver Education. Prerequisite: 15 credits in approved Safety and Driver Education courses and/or approval of Director.

**28.437 AUTO MECHANICS FOR DRIVING INSTRUCTORS (2)** Acquaints students with mechanics of automobile to enable him to better teach this area and "trouble-shoot" in minor mechanical emergencies. Laboratory approach utilized. Prerequisite: 15 credits in approved Safety and Driver Education courses and/or approval of Director.

**28.438 (26.475) THE DRIVER, HIS CHARACTERISTICS AND IMPROVEMENT (3)** Treatment of the driver-behavior problem in its relation to many of the psycho-physical factors and forces in the traffic environment that impinge upon the man behind the wheel. Prerequisite: 15 credits in approved Safety and Driver Education courses and/or approval of Director.

**28.439 (26.478) PUPIL TRANSPORTATION (3)** Consideration of organization and administration of state, county, and district pupil transportation service with emphasis on safety and economy. Selection and training of drivers, route planning, maintenance mechanics, bus specifications and procurement are included. Prerequisite: 15 credits in approved Safety and Driver Education courses and/or approval of Director.

**28.440 (26.484) PUBLIC SCHOOL TRANSPORTATION OF SCHOOL CHILDREN (3)** Consideration of the problems of school bus transportation, solutions employed, and a review of research and techniques in this field. Workshop approach utilized. Prerequisite: 15 credits in approved Safety and Driver Education courses and/or approval of Director.

**28.441 (26.474) ADMINISTRATION AND SUPERVISION OF SAFETY EDUCATION (3)** Background and experience in administration and supervision of Safety education programs, K-12. Methods, techniques, materials, program planning, records and reports, financing and insurance. Prerequisite: 15 credits in approved Safety and Driver Education courses and/or approval of Director.

**28.442 (28.436) ADMINISTRATION AND SUPERVISION OF DRIVER EDUCATION (3)** Background and experience in administration and supervision of Driver Education programs. Methods of organization, techniques, materials, program planning, records and reports, financing and insurance, procurement, personnel selection, planning classroom and in-car laboratory experiences are included. Prerequisite: 15 credits in approved Safety and Driver Education courses and/or approval of Director.

**28.443 (26.476) PROBLEMS IN SAFETY AND DRIVER EDUCATION (3)** Consideration of the individual problems encountered in the teaching of driver and safety education. The psychology of teaching and learning are emphasized and consideration is given to the implications of emotional and attitudinal factors in driver and traffic education. Prerequisite: 15 credits in approved Safety and Driver Education courses and/or approval of Director.

**28.444 (26.477) FIELD STUDIES IN SAFETY AND DRIVER EDUCATION (3)** Designed to meet the needs of persons in the field with respect to research projects in special areas. Includes examination of existing courses of study, current trends, current research, evaluation, supervision, and techniques. Students will be expected to carry out a special field project in their area of interest. Prerequisite: 15 credits in approved Safety and Driver Education courses and/or approval of Director.

**28.445, 446 CURRICULUM DEVELOPMENT IN SAFETY AND DRIVER EDUCATION (3, 3)** History of curriculum development in safety and driver education; principles, philosophies; objectives, current practices, evaluation techniques; laboratory experience; and field study. Prerequisite: 15 credits in approved Safety and Driver Education courses and/or approval of Director



## LIBRARY SCIENCE COURSES (EDPM)

### *Upper Division — Undergraduate and Graduate*

**28.355 (26.355) REFERENCE MATERIALS FOR SCHOOL LIBRARIANS (3)** Introduction to general and subject bibliographies and indexes, trade and national bibliographies, general reference tools, encyclopedias and dictionaries

**28.357 (26.357) ORGANIZATION OF MEDIA CENTERS FOR SCHOOL LIBRARIANS (3)** Principles of bibliographic control, use of printed catalog cards, and commercial processing services, introduction to book catalogs, and methods of controlling non-print media

**28.455 (26.455) CHILDREN'S LITERATURE FOR SCHOOL LIBRARIANS (3)** Emphasizing the multi-media approach, this would introduce the student to the wealth of imaginative literature (in print, on recordings, on film, etc.) available for children K-6.

**28.457 (26.457) YOUNG ADULT LITERATURE FOR SCHOOL LIBRARIANS (3)** Covers fiction, biography travel — a wide range of recreational and imaginative materials for young people in their teens including means of introducing the materials to young people

**28.459 (26.459) ADMINISTRATION AND SERVICES OF MEDIA CENTERS FOR SCHOOL LIBRARIANS (3)** Culminating course. Emphasis on evaluation of the community and services of media centers Analysis of student and faculty community and range of services — reading guidance, reference and instructional services

## English

### ENGLISH COURSES (ENGL)

#### *Upper Division — Undergraduate and Graduate*

**30.302 THE ENGLISH RENAISSANCE (3)** Non-dramatic literature of the Elizabethan period.

**30.303 (303) NON-DRAMATIC ENGLISH LITERATURE OF THE SEVENTEENTH CENTURY (3)** Major English non-dramatic literature of the seventeenth century; the approach will be both critical and historical.

**30.309 AMERICAN DRAMA (3)** A study of American drama from the beginning to the present.

**30.312 (312) WORLD DRAMA I (3)** An historical and critical study of world drama and the cultural forces which produced it from the ancient Greeks to the Neo-Classical period.

**30.313 (313) WORLD DRAMA II (3)** An historical and critical study of world drama and the cultural forces which produced it from the Neo-Classical period to the late nineteenth century.

**30.317 (317) LITERARY BIOGRAPHY (3)** Critical reading from the literary point of view of important biographies, principally English and American.

**30.319 (319) ENGLISH MEDIEVAL AND RENAISSANCE DRAMA (3)** Development of the English Drama from the Middle Ages through the Renaissance, excluding Shakespeare

**30.320 (320) ENGLISH DRAMA FROM THE RESTORATION TO SHAW (3)** Development of the English Drama in the seventeenth, eighteenth, and nineteenth centuries.

**30.321 (321) MODERN DRAMA (3)** Critical reading of plays of the late nineteenth century and the twentieth century.

**30.323 THE CONTINENTAL NOVEL (3)** A study of major continental novels in translation. Emphasis will be upon related and comparative elements in the novels of writers of France, Germany, Italy and other European countries.

**30.325 (325) HISTORICAL LINGUISTICS (3)** An introduction to language typology and Indo-European philology, historical development of linguistics up to the twentieth century.

**30.326 (326) MYTH AND LITERATURE (3)** The reinterpretation of themes and figures from Greek and Roman mythology

**30.327 (327) STRUCTURAL LINGUISTICS (3)** A study of the developments in linguistic theory in the twentieth century; major figures, De Saussure, Sapir, Bloomfield, Trubetzkoy, Chomsky.

**30.335 (335) LITERATURE OF THE ENGLISH ROMANTIC PERIOD (3)** Major writers, social and political background, important literary ideas, and criticism.

**30.337 VICTORIAN PROSE AND POETRY I (3)** A study of the works of Tennyson; Arnold; and the Victorian "prophets" — Macaulay, Carlyle, Newman, and Mill.

**30.338 VICTORIAN PROSE AND POETRY II (3)** A study of the works of Browning; Ruskin and the Pre-Raphaelites; Pater, Hardy, Housman, and Yeats.

**30.340 (340) MEDIEVAL LITERATURE (3)** English literature during the Middle Ages.

**30.345 (345) EIGHTEENTH CENTURY ENGLISH PROSE AND POETRY (3)** Major eighteenth century English prose and poetry; the approach will be both critical and historical. The novel will not be studied.

**30.349 ENGLISH PROSE SINCE 1500 (3)** A survey of non-fictional prose in English literature from 1500 to the present. Prerequisite: 3 hrs. comp., 3 hrs. soph. lit., at least one additional lower division English course.

**30.401 THE LITERATURE OF BLACK AMERICA (3)** The literature of black expression in the United States with emphasis on the twentieth century. Non-fiction, fiction, and poetry by black writers will be studied.

**30.405 (405) LITERARY CRITICISM I (3)** History and principles of literary criticism. Specified prerequisites and consent of instructor.

**30.406 (406) LITERARY CRITICISM II (3)** Practice in writing literary criticism. Specified prerequisites and consent of instructor.

**30.407 (407) MODERN POETRY (3)** Work of the important twentieth century poets.

**30.408 (408) MODERN FICTION TO WORLD WAR II (3)** Work of the modern masters of fiction.

**30.409 (409) MODERN FICTION SINCE WORLD WAR II (3)** Works of the significant writers — English, American, and Continental — of the past twenty years. The works of these writers carry on or challenge the tradition established by the modern masters of fiction.

**30.410 (410) CHAUCER (3)** A study of the major poetry.

**30.412 (412) MILTON (3)** A study of the poetry and major prose works.

**30.415 (415) SHAKESPEARE (COMEDIES) (3)** Shakespeare's development as a poet and a dramatist during the period of the comedies and historical plays.

**30.416 (416) SHAKESPEARE (TRAGEDIES) (3)** The great tragedies and the late romantic comedies of Shakespeare.

**30.419 THE 20TH CENTURY BRITISH NOVEL (3)** Survey of the British novel from Conrad to the present. Prerequisite: 30.102 (104) and an additional 5 lower division credits in literature.

**30.420 20TH CENTURY BRITISH POETRY (3)** Survey of British poetry from Hopkins to the present. Prerequisite: 30.102 (104) and an additional 5 lower division credits in literature.

**30.422 (422) DEVELOPMENT OF THE ENGLISH NOVEL (3)** History and development of the English novel through the eighteenth century.

**30.423 (423) DEVELOPMENT OF THE ENGLISH NOVEL (3)** History and development of the English novel through the nineteenth century.

**30.427 LITERATURE OF THE AMERICAN ROMANTIC PERIOD (3)** Major writers, social and political background, important literary ideas, and criticism.

**30.430 (430) HISTORY OF THE ENGLISH LANGUAGE (3)** Changes and reasons for the changes in grammar, sound, and vocabulary of the language, from Old English to modern times.

**30.431 (431) STRUCTURE OF THE ENGLISH LANGUAGE (3)** A linguistic approach to sounds, forms, syntax, and usage.

**30.432 (432) OLD ENGLISH LANGUAGE (3)** Grammar and syntax of Old English; translation of elementary texts; introduction to Germanic philology.

**30.433 (433) MIDDLE ENGLISH LANGUAGE (3)** Grammar and syntax of Middle English, study of Middle English dialects, reading of selected texts of twelfth to fifteenth centuries.

**30.435 AMERICAN SHORT STORY (3)** A study of the American short story from the beginning to the present.

**30.437 SURVEY OF ENGLISH PROSE (3)**

**30.438 PROSE OF THE ENGLISH ROMANTIC PERIOD (3)** Readings in the prose literature of the English Romantic Period with emphasis on Coleridge, Keats, Hazlitt, Lamb, and DeQuincey. Prerequisite: 3 hrs comp., 3 hrs soph lit. at least one additional lower division English course.

**30.445 NINETEENTH CENTURY AMERICAN NOVEL (3)** A study of the works of major novelists of the nineteenth century

**30.446 TWENTIETH CENTURY AMERICAN NOVEL (3)** A study of the works of major novelists of the twentieth century

**30.447 AMERICAN POETRY TO 1900 (3)** A study of American poetry from its beginning through the nineteenth century. Emphasis on major figures

**30.448 TWENTIETH CENTURY AMERICAN POETRY (3)** A study of major American poets since 1900

**30.494 TRAVEL AND STUDY (3-6)** Countries and topics to be selected by the departments and instructors sponsoring the program. For enrollment procedures, write the Chairman of the Department early in the fall of the academic year preceding the summer of intended study.

## Geography

### GEOGRAPHY COURSES (GEOG)

*Upper Division — Undergraduate and Graduate*

#### SYSTEMATIC COURSES

**34.361 ADVANCED ECONOMIC GEOGRAPHY (3)** Studies mainly of the secondary and tertiary industries with some emphasis on quantitative analyses of selected economic activities

**34.371 (301) ADVANCED PHYSICAL GEOGRAPHY (3)** Detailed analysis of characteristics, distribution, and geographical significance of the earth's physical features.

**34.373 (395) CLIMATOLOGY (3)** Character, causes, and distribution of climatic types. Emphasis upon world patterns. Students may be required to do field work.

**34.381 (331) POLITICAL GEOGRAPHY (3)** Effect of political groupings upon man's use of the world, and the influence of the geographic base upon political power.

**34.385 GEOGRAPHY OF POPULATION AND SETTLEMENT (3)** Regional analysis of environmental resource factors contributing to various population densities and the resultant settlement patterns of man's use of the land. Prerequisite: 3 credits of geography at the 100 or 200 level or consent of instructor.

**34.391 (413) URBAN GEOGRAPHY (3)** Survey of the structure, functions, forms and development of urban units. Emphasis upon the locational features of social, economic, and cultural phenomena. Field work.

**34.401 GROWTH OF GEOGRAPHIC THOUGHT (3)** History, nature, and methodology of geography as a discipline. Analysis of schools of geographic thought; critical evaluation of important geographic works.

#### TECHNIQUE COURSES

**34.321 (300) INTERPRETATION OF AERIAL PHOTOGRAPHY (3)** Reading and interpretation of aerial photographs. The application of the aerial photograph in the fields of geography, geology, and photogrammetry.

**34.323 (330) CARTOGRAPHY (3)** Study in design, construction, and effective application of maps and charts for analysis and publication; practical exercises in the use of cartographic tools, materials, and techniques.

**34.327 MAP ANALYSIS AND INTERPRETATION (3)** Principal types of maps and their uses. Emphasis on understanding map components and the range of physical and cultural phenomena indicated on maps. Includes selected exercises which illustrate the analytical and graphical values of maps.

**34.341 TECHNIQUES AND MATERIALS FOR GEOGRAPHY TEACHERS (3)** A systematic review of geographic concepts in relation to interdisciplinary studies in the physical and social sciences. Examination of the content of geography and problems of presentation.

### **REGIONAL COURSES**

**34.421 (230) GEOGRAPHY OF ANGLO-AMERICA (3)** Common social, economic, and political interests of the major regions of the United States and Canada. The culture patterns of each region in relation to the natural settings in which they have developed.

**34.423 (320) HISTORY AND GEOGRAPHY OF MARYLAND (3)** Political, social and economic development of the state and its relation to major events in the development of the nation. Natural resources; regional land use; industrial development, particularly in the Baltimore area. Field trips. Field trip expenses about \$15.00, payable when trips are taken.

**34.431 (318) GEOGRAPHY OF AFRICA (3)** Material resources and human geography of Africa. Problems of economic development, nationality and cultural conflicts.

**34.441 (390) GEOGRAPHY OF AUSTRALIA AND OCEANIA (3)** Regional approach in analyzing and interpreting the physical and cultural patterns, natural resources, current problems, and strategic importance of the Pacific world.

**34.443 (315) GEOGRAPHY OF EAST ASIA (3)** Regional studies of the physical and cultural foundations in China, Japan, and Korea. Emphasis upon human and economic resources, and role in world affairs.

**34.445 (314) GEOGRAPHY OF SOUTH AND SOUTHEAST ASIA (3)** Regional studies of the physical and cultural foundations of India, Pakistan, Ceylon, Philippines, and Indonesia. Principal human and economic resources, problems of development, and role in world affairs.

**34.451 (311) GEOGRAPHY OF EUROPE (3)** Regional analysis and appraisal of the human geography and natural resources of Europe. Problems of nationality, economic development, and cultural conflicts.

**34.453 (319) GEOGRAPHY OF THE USSR (3)** Physical and cultural patterns and their bearing on the Soviet Union as a world power. Regional distribution and use of natural and human resources in agriculture and industry. Problems in economic development and production.

**34.461 (309) GEOGRAPHY OF LATIN AMERICA (3)** Distribution and character of the economic activities in various Latin American countries in relation to physical and cultural features. Resources and problems of their development; importance of foreign trade to the economy; relationship with the United States.

### **SEMINARS AND SPECIAL COURSES**

**34.481 SEMINAR: SELECTED TOPICS IN GEOGRAPHY (3)** Reading and research in selected topics in the field of geography. Seminar topics will be announced.

**34.483 (487) SEMINAR: THE AMERICAS (3)** Individual study in selected problems of the geography of the Americas.

**34.485 (488) SEMINAR: SOUTH ASIA (3)** Reading, research, and discussions on special topics related to India, Pakistan, Ceylon, the Himalayan Kingdoms, and Afghanistan.

**34.487 (489) SEMINAR: GEOGRAPHY AND MAN IN THE 20th CENTURY (3)** Selected studies on the role of geographic factors in economic and political affairs and the development of technology. Analysis of contributions of applied geography to the solution of urban and rural problems.

**34.493 FIELD GEOGRAPHY (2-6)** Practical laboratory experience in techniques in the collection and analysis of data by observations, measurements, mapping, and photographic records. Such techniques are to be applied to selected geographic problems.

**34.494 TRAVEL AND STUDY (3-6)** Countries and topics to be selected by departments and instructors sponsoring the program. For complete information, write the Chairman of the Department early in the fall of the academic year preceding the summer of intended study. Prerequisite: Upper division status and consent of instructor.

## *Graduate Division*

**34.521 RESEARCH TECHNIQUES IN GEOGRAPHY (3)** A course designed to investigate the primary sources of information in geography and to learn the nature of original investigation.

**34.571 STUDIES IN PHYSICAL GEOGRAPHY (3)** The study of selected geographical topics dealing with physical landscape phenomena, especially in regards to distribution, relationships, and significance to man. Topics will be announced. No more than six semester hours may be applied toward a degree.

**34.581 SEMINAR IN POLITICAL GEOGRAPHY (2-6)** Special subjects dealing with the geography of international politics, e.g. boundary problems, global strategy, space, sovereignty. Topics to be announced. No more than six semester hours may be applied toward a degree.

**34.591 URBAN GEOGRAPHY STUDIES (2-6)** Selected topics dealing with the application of geography to planning, retail and industrial location, and trade analysis. Topics to be announced. No more than six semester hours may be applied toward a degree.

**34.601 LAND USE STUDIES (2-6)** Certain selected problems on urban, rural and rural-urban landscapes which consider and account for geographic differences in land utilization. Topics will be announced. No more than six semester hours may be applied toward a degree.

**34.671 SEMINAR IN REGIONAL GEOGRAPHY (2-6)** The description, analysis and interpretation of natural and cultural phenomena in certain significant geographic regions. Seminar topics will be announced. No more than six semester hours may be applied toward a degree.

**34.697 RESEARCH (2-6)** Directed investigation of a pertinent and appropriate geographical problem or problems based upon field and library study, which will contribute to geographical knowledge. Designed for the Master's thesis credit or individual research.

# Health Education

## *HEALTH COURSES (HEAL)*

### *Upper Division — Undergraduate and Graduate*

**38.301 HEALTH EDUCATION CURRICULUM (3)** Developing school health programs of instruction based on health needs and problems of school children. Prerequisite: 38.205.

**38.401 SEX EDUCATION AND FAMILY LIFE (3)** Discusses historical, physiological, sociological, psychological, and religious aspects of sex. Presentations will include guest speakers, panel discussions, and audio-visual aids. Prerequisite: PSYC 70.201; 38.101; BIOL 14.101.

**38.402 HEALTH SEMINAR (3)** Examination of recent trends in school and public health, reports of student projects, consultation with experts in health field.

**38.405 DRUGS IN OUR CULTURE (3)** An in-depth review of harmful, useful, and useless substances which may affect behavior or mood; the interaction of psychological, sociological and physiological components included. Prerequisite: 38.101 or consent of department.

**38.451 ECOLOGICAL ASPECTS OF HEALTH (3)** An examination of the interrelationship between man and his environment. Emphasis is placed upon health aspects of pollution, housing, sanitation, radiation, behavioral disorders, and epidemiology. Prerequisite: 38.101, 80.101 (or consent of the department).

**38.485 HEALTH WORKSHOP (3)** For teachers, administrators, and individuals concerned about health related fields. Contemporary health aspects are considered with emphasis on implementation of positive behavior aimed at improving the health of the individual and the community. Enrollment is limited to 25. Prerequisite: Consent of department.

## *Graduate Division*

**38.515 PROBLEMS IN SCHOOL HEALTH (3)** Designed to assist the student in developing an understanding of the current problems in school health programs. The structure, organization, scope, content and practices in the field as revealed through literature and research in studied. Prerequisite: Open only to students with an undergraduate degree in Health and Physical Education or consent of instructor.



# History

## *HISTORY COURSES (HIST)*

### *Upper Division — Undergraduate and Graduate*

**40.301 (301) ANCIENT NEAR EASTERN CIVILIZATIONS (3)** The civilizations of Mesopotamia and Egypt and the peripheral developments in Syria-Palestine and Asia Minor. Prerequisite: 40.262 or consent of the instructor.

**40.302 (302) CLASSICAL CIVILIZATIONS (3)** The civilizations of Greece and Republican Rome with emphasis on their comparative developments to 30 B.C. Prerequisite: 40.262 or consent of the instructor.

**40.303 (303) HELLENISTIC CIVILIZATION (3)** The civilization that arose in the Mediterranean Basin after the conquests of Alexander and the Roman Empire within this context. Prerequisite: 40.262 or consent of the instructor.

**40.309 (309) HISTORY OF EAST ASIA UNTIL THE SEVENTEENTH CENTURY (3)** The historical development of the civilizations of China, Japan, and Korea prior to the intrusion by the Western powers, with special emphasis on the evolution of the Confucian culture of China. Prerequisite: 40.110 or consent of instructor.

**40.310 (310) HISTORY OF EAST ASIA SINCE 1600 (3)** A study of the historical development of China, Japan, and Korea in the past three centuries focusing on their respective responses to the Western World. Prerequisites: 40.110 or 40.309 or consent of instructor.

**40.311 (367) HISTORY OF SOUTH ASIA TO 1750 (3)** A survey of the history and culture of the Indian subcontinent from prehistoric times to the beginning of the British Raj. Prerequisite: Six hours of history or consent of instructor.

**40.312 (368) HISTORY OF SOUTH ASIA SINCE 1750 (3)** The history of the Indian subcontinent since 1750, stressing the rise of British power, the colonial experience, the development of nationalist movements, and the problems of statehood in present-day India, Pakistan, Ceylon, and Nepal. Prerequisite: Six hours of history or consent of instructor.

**40.313 (313) HISTORY OF MODERN SOUTHEAST ASIA (3)** The development of Burma, Thailand, Malaysia, Indonesia, Cambodia, Vietnam, and the Philippines since 1500, with emphasis on the colonial experience and development of modern nationhood. Prerequisite: Six hours of history or consent of instructor.

**40.315 (458) A HISTORY OF CHINA TO 1644 (3)** The beginnings of Chinese civilization and institutions, the introduction of Buddhism, the rise of Taoism and Confucianism. The evolution of Chinese art and literature, the invasions and internal dissent. Prerequisite: 40.110.

**40.316 (459) CHINESE HISTORY SINCE 1644 (3)** The rise of the Manchu dynasty, western penetration of China, the Opium Wars, Taiping Rebellion, reform and revolution. The succession of the Kuomintang and the rise of Chinese Communism. Prerequisite: 40.110

**40.317 (317) HISTORY OF MODERN JAPAN (3)** The political, economic, and cultural aspects of Japan's rapid modernization from the mid-nineteenth century and her subsequent expansion, defeat, and recovery. Prerequisite: Nine hours of history to include either 40.110 or 40.310 or consent of instructor.

**40.321 (321) HISTORY OF MEXICO (3)** The evolution of modern Mexican civilization. Consideration of the cultural, social, religious, economic and political development from pre-Columbian times to the present. Prerequisite: 40.121, 40.122 or 40.145, 40.146 or 40.263, 40.264 or consent of instructor.

**40.327 (327) SOCIAL AND INTELLECTUAL HISTORY OF LATIN AMERICA (3)** A study of the impact of ideas on the organization of Latin American society in different epochs. Prerequisite: 40.121, 40.122 or consent of instructor.

**40.333 (430) SUB-SAHARAN AFRICA (3)** Selected aspects of the development of African cultures, emphasizing changing assumptions and interpretations and the contributions of other disciplines to the reconstruction of Africa's past. Prerequisite: six hours of history; or three hours of history and three hours of anthropology; or consent of instructor.

**40.345 (345) THE AMERICAN COLONIES: 1492-1763 (3)** Founding and the political, economic, and social development of the American colonies. Prerequisite: 40.145, 40.263 or consent of instructor.

**40.346 (340) THE AMERICAN REVOLUTIONARY PERIOD: 1763-1789 (3)** From the end of the Seven Years' War to the ratification of the Constitution Prerequisite: 40 145 or 40 263 or consent of instructor

**40.347 (346) THE EARLY NATIONAL PERIOD (3)** The United States from the Constitutional Convention to the Election of 1820 The Federalist Decade and the Jeffersonian Era Prerequisite: 40 145

**40.348 (347) THE JACKSONIAN ERA (3)** The United States from 1815 to 1845, political, social and economic currents of the period. Prerequisite: 40 145

**40.349 (348) CIVIL WAR AND RECONSTRUCTION (3)** Sectional crises leading to the Civil War, political, economic, and social issues arising during the years of the war and Reconstruction. First semester to the end of the Civil War Prerequisite: 40 145 and 40 146.

**40.350 (349) CIVIL WAR AND RECONSTRUCTION (3)** Continuation of 349 from the election of Lincoln to 1877 Prerequisite: 40 145 and 40.146.

**40.351 (337) THE GILDED AGE (3)** History of the United States from 1877 to 1892 with emphasis on the political, economic, and social questions of the era Prerequisite: 40 145 and 40 146

**40.352 (338) THE POPULIST-PROGRESSIVE ERA (3)** History of the United States from 1892-1920 with emphasis on the political, economic, and social questions of the era Prerequisite: 40 145 and 40 146

**40.359 (350) RECENT AMERICAN HISTORY, 1920-1945 (3)** History of the United States from the 1920's through World War II, with emphasis on the presidential years of Franklin D. Roosevelt. Prerequisite: 40 146

**40.360 (351) RECENT AMERICAN HISTORY SINCE 1945 (3)** History of the United States from World War II to the present, including political, social, economic, and diplomatic developments. Prerequisite: 40 146.

**40.361 (413) AMERICAN INTELLECTUAL HISTORY TO 1859 (3)** Main issues in American thought from the colonial period to the publication of Darwin's *The Origin of Species*. Emphasis on religious thought, political theory and ideas in literature. Prerequisite: 40.145 or 30 211.

**40.362 (414) AMERICAN INTELLECTUAL HISTORY SINCE 1859 (3)** Main issues in American thought from the publication of Darwin's *The Origin of Species* to contemporary times. Emphasis on religious thought, social theory, ideas in literature and philosophy. Prerequisite: 40.146 or 30 212.

**40.363 (415) SOCIAL HISTORY OF THE UNITED STATES I (3)** History of American life from the 17th century to the present, focusing on problems relating to social structure, popular culture, religious and educational institutions to 1865 Prerequisite: 40.145

**40.364 (416) SOCIAL HISTORY OF THE UNITED STATES II (3)** Continuation of 40.363 from 1865 to the present. Prerequisite: 40.146.

**40.365 (333) ECONOMIC HISTORY OF THE UNITED STATES I (3)** American economic development with an emphasis upon trends and problems of contemporary importance, colonial times to 1865. Prerequisite: 40 145

**40.366 (334) ECONOMIC HISTORY OF THE UNITED STATES II (3)** Continuation of 40.365 from 1865 to the present. Prerequisite: 40.146.

**40.367 (402) CONSTITUTIONAL HISTORY OF THE UNITED STATES I (3)** Development of American constitutionalism in theory and practice to 1868 Prerequisite: 40.145.

**40.368 (403) CONSTITUTIONAL HISTORY OF THE UNITED STATES II (3)** Continuation of 40.367 since 1868. Prerequisite: 40.146.

**40.369 (451) DIPLOMATIC HISTORY OF THE UNITED STATES TO 1900 (3)** Evolution of the American national interest in foreign relations with Europe, Latin America, and the Far East from colonial times to 1900. Emphasis upon the changing character and role of objectives, policies, commitment and forces. Prerequisite: 40.145 and 40.146.

**40.370 (452) DIPLOMATIC HISTORY OF THE UNITED STATES SINCE 1900 (3)** Continuation of 40.369 to the present with added interest in the emergence of the United States as a major world power. The role of the United States in modern warfare, world wide economic and financial affairs, overseas expansion, the diplomatic impact of conflict in ideologies, and current international crisis. Prerequisite: 40 145 and 40.146

**40.371 (371) UNITED STATES RELIGIOUS HISTORY I (3)** The interactions between religion, society, reform, and education in the American past. Emphasis on how religious ideals have shaped American institutions and character. First semester to 1865 Prerequisite: 40.145.

**40.372 (372) UNITED STATES RELIGIOUS HISTORY II (3)** Continuation of 40.371 since 1865. Prerequisite: 40.146.

**40.373 (373) THE AMERICAN FRONTIER I (3)** The westward movement of the American people and the effect of the frontier process on the social, economic, and political institutions of the United States and on the attitudes of the American people to 1840. Prerequisite: 40.145.

**40.374 (374) THE AMERICAN FRONTIER II (3)** Continuation of 40.373 since 1840. Prerequisite: 40.146.

**40.375 (405) THE CITY IN AMERICAN HISTORY (3)** The development of the city and its impact on American social, cultural, intellectual, political and economic life. Prerequisite: 30.145, 40.146 or two of the following: 34.391, 80.344, 68.305 or consent of instructor.

**40.377 (407) THE IMMIGRANT IN AMERICAN HISTORY (3)** History of the immigrant experience in America from the colonial period to the present. Emphasis on migration patterns, receptivity of native society, assimilation and acculturation processes. Prerequisite: 40.145 and 40.146.

**40.379 INDIAN WHITE RELATIONS IN AMERICAN HISTORY (3)** The interplay of societal attitudes, cultural beliefs, and official government policy and their impact on the Indian population of North America, 1492 to the present. Prerequisite: 40.145 or 40.146.

**40.381 (417) HISTORY OF BLACK AMERICANS (3)** History of Americans of African ancestry from their West African background to the present. Emphasis on black Americans' thought, activities, organizations and their role in developing America. Prerequisite: 40.145 and 40.146.

**40.391 (418) HISTORY OF CANADA (3)** Canadian history with emphasis on the period since 1867. Particular attention will be given to the problems of cultural dualism and confederation. Prerequisite: 40.145, 40.146, or 40.263 and 40.264.

**40.397 (320) HISTORY AND GEOGRAPHY OF MARYLAND (3)** Political, social and economic development of the state and its relations to major events in the development of the nation. Natural resources; regional land use; industrial development, particularly in the Baltimore area. Field trips \$15.00 field trip fee payable at the time of preregistration. Prerequisite: 40.145, 40.146 and GEOG 34.101, 34.102.

**40.400 (420) SEMINAR IN AMERICAN HISTORY (3)** Reading and research dealing with a phase of history to be selected by the instructor; considerable attention to sources and historiography. Prerequisite: 40.145, 40.146, 40.263, 40.264, 40.299, and consent of instructor.

**40.401 (357) MEDIEVAL CIVILIZATION (3)** The principle currents of political, social, intellectual, and artistic developments in medieval Europe from the early middle ages to about 1050. Prerequisite: 40.263.

**40.402 (358) MEDIEVAL CIVILIZATION (3)** Continuation of 40.401 - the high middle ages, 1050 to 1350. Prerequisite: 40.263.

**40.403 EUROPE IN TRANSITION (3)** Political, economic, social and cultural changes in late medieval and Renaissance Europe. Prerequisite: 40.262 and 40.263.

**40.404 THE REFORMATION (3)** Religious, political, economic and social changes in Reformation and Catholic (Counter-) Reformation Europe. Prerequisite: 40.262 and 40.263.

**40.405 (363) EUROPE: 1648-1815 (3)** European state system and expansion of European civilization; intellectual growth and class relationships culminating in the French Revolution and Napoleon. Prerequisite: 40.263 and 40.264.

**40.406 (364) EUROPE: 1815-1914 (3)** Major economic, political, social, and intellectual currents of the period. The effects of the industrial revolution, the development of nationalism and imperialism, and the origins of World War I. Prerequisite: 40.263 and 40.264.

**40.407 (463) EUROPE: 1914-1939 (3)** Events leading to World War I, the conflict, and the peace which followed. The rise of conflicting political ideologies and the road to World War II. Prerequisite: 40.263 and 40.264.

**40.408 (464) EUROPE SINCE 1939 (3)** World War II - diplomacy, strategy, and results. The economic, social and political recovery of post-war Europe and the development of new alliance structures. Prerequisite: 40.263 and 40.264.

**40.413 (425) EUROPEAN MILITARY HISTORY SINCE 1815 (3)** The major wars and inter-war military developments of post-Napoleonic Europe seen in the context of diplomatic, economic and technological history. Prerequisite: 40.264 or consent of instructor.

**40.415 (426) DIPLOMATIC HISTORY OF EUROPE: 1815-1939 (3)** A survey with emphasis upon specific diplomatic crises. Prerequisite: 40 264

**40.417 (328) ECONOMIC HISTORY OF EUROPE I (3)** The modern economic institutions of Western Europe. The commercial revolution, industrial revolution, the age of mass production and technology to 1750. Prerequisite: 40 263

**40.418 (329) ECONOMIC HISTORY OF EUROPE II (3)** Continuation of 40.417 since 1750. Prerequisite: 40 264

**40.421 (470) BRITAIN IN THE TWENTIETH CENTURY (3)** The role of Britain, the Commonwealth and the Empire. Social reform and World War I. Efforts to recover economic equilibrium. World War II. Decline of the Empire. Britain and Socialism. Prerequisite: 40 263 and 40 264

**40.431 (428) FRANCE: 1763-1871 (3)** Old Regime and the impact of successive revolutions upon French society. Emphasis upon the role of France in the growth of European liberalism and nationalism. Prerequisite: 40.264

**40.441 (460) MODERN GERMANY: 1871-1945 (3)** Brief topical analysis of the nineteenth century background. Concentration on the Bismarckian Empire, Weimar Republic and the Third Reich, emphasizing the interrelationships between internal developments and Germany's role in Europe and the world. Prerequisite: 40 264

**40.451 (423) RUSSIA TO 1894 (3)** From Kievan Rus to the reign of Nicholas II. Prerequisite: 40 263 and 40 264 or consent of the instructor

**40.452 (424) RUSSIA/SOVIET UNION SINCE 1894** From the reign of Nicholas II to the present. Prerequisite: 40 263 and 40 264 or consent of the instructor.

**40.441 (419) SEMINAR IN EUROPEAN HISTORY (3)** Reading and research dealing with a phase of history to be selected by the instructor, considerable attention to sources and historiography. Prerequisite: 40 145, 40.146, 40 263, 40 264, 40 299, and consent of instructor.

**40.463 (433) INTELLECTUAL HISTORY OF WESTERN CIVILIZATION (3)** Religious and scientific thought in the context of broad historical trends, social theory also considered. Medieval, Renaissance, and Reformation history covered briefly; emphasis on 17th and 18th centuries. Prerequisite: 40.264 or consent of the instructor.

**40.464 (434) INTELLECTUAL HISTORY OF WESTERN CIVILIZATION (3)** Continuation of 40 463 from 1800 to the present. Prerequisite: 40 264 or consent of instructor.

**40.477 (435) MODERN WESTERN COLONIALISM (3)** Expansion of Western culture and institutions with particular reference to their effects on the peoples of Asia and Africa in the period since 1870. Prerequisite: 40.263 and 40.264

**40.479 (437) A HISTORY OF DIPLOMACY (3)** Evolution from its origins to the present with emphasis on the modern period. Historic changes which shifting ideologies and new technologies have wrought in the role of the diplomat. Prerequisite: 40 263 and 40.264

**40.483 MODERN JEWISH HISTORY TO 1948 (3)** The political, cultural, and socio-economic experiences of world Jewry with emphasis on development since the French Revolution.

**40.490 INTERPRETIVE PROBLEMS IN HISTORY (3)** An in-depth study of historical interpretations of selected topics.

**40.491 (214, 215, 218, 217) BIOGRAPHICAL STUDIES IN HISTORY (3)** A study of selected historical figures who have shaped or reflected the past. Figures to be selected by instructor. Prerequisite: Six hours of history

**40.492 HISTORICAL THEMES (3)** A study through lectures and discussions of a historical topic selected by the instructor(s).

**40.493 (493) PRACTICUM (2-6)** Experience designed to combine the research and content of history with work of historical libraries, museums, archival depositories, and similar agencies. No more than six hours to be earned with any one agency. Prerequisite: Twenty-seven hours of history courses and consent of Department Chairman.

**40.494 (490) TRAVEL & STUDY (3-6)** Countries and topics to be selected by the Departments and instructors sponsoring the program. For complete information, write the Chairman of the Department early in the fall of academic year preceding the summer of intended study. Prerequisite: Upper division status and consent of instructor.



**40.495 (495) SEMINAR IN COMPARATIVE STUDIES (3)** Reading and research in history or related disciplines approached from a viewpoint that is primarily historical and dealing with specific topics, problems, or developments selected by the instructor(s). Prerequisite: 40.299 and four additional courses in history, or two courses in history and a research methods course, and two additional courses in the related discipline and consent of instructor.

**40.496 (496) COLLOQUIUM (3)** Group discussion in reading in history or related disciplines approached from a viewpoint that is primarily historical and dealing with broad periods, topics, problems, or comparative developments selected by the instructor(s). Prerequisite: consent of the instructor and fifteen hours of history or nine hours of history and six hours of the related discipline.

**40.497 (485) DIRECTED READING (2-4)** Independent reading in history or related disciplines approached from a viewpoint that is primarily historical and dealing with specific periods, topics, problems or comparative developments selected by the student in consultation with the instructor(s). Prerequisite: 15 hours in history or 9 hours in history and 6 hours in the related discipline and a minimum average of 3.00 in history and the related discipline and consent of Department Chairman.

**40.498 PHILOSOPHY OF HISTORY (3)** Metaphysical foundations of historical knowledge (epistemology) and metaphysical interpretations of the course of history. "Scientific" history, history of historical metaphysics.

### *Graduate Division*

**40.599 (599) SEMINAR IN UNITED STATES HISTORY TO 1865 (3)** Research dealing with a phase of United States history to 1865 to be selected by the instructor. Prerequisite: Consent of instructor.

**40.600 (600) SEMINAR IN UNITED STATES HISTORY SINCE 1865 (3)** Research dealing with a phase of United States history since 1865 to be selected by the instructor. Prerequisite: Consent of instructor.

**40.661 (661) SEMINAR IN 19TH CENTURY EUROPEAN HISTORY (3)** Research dealing with a phase of nineteenth century European history to be selected by the instructor. Prerequisite: Consent of instructor.

**40.662 (662) SEMINAR IN THE 20TH CENTURY EUROPEAN HISTORY (3)** Research dealing with a phase of twentieth century European history to be selected by the instructor. Prerequisite: Consent of instructor.

**40.697 (697) DIRECTED READING IN HISTORY (2-4)** Independent reading in areas of history selected by the instructor and the student. Prerequisite: Consent of instructor

## Mathematics

### *MATHEMATICS COURSES (MATH)*

#### *Upper Division — Undergraduate and Graduate*

**50.311 INTRODUCTION TO DATA PROCESSING (3)** An introduction to the concepts of data processing: definitions, historical background, punched card systems, computer systems, basic concepts of programming, I/O devices, source data, operating systems and data communication. Prerequisite: 16.102 (second semester Accounting).

**50.312 COBOL PROGRAMMING (3)** Study of COBOL language with students writing, testing, and debugging programs, using cards, tapes and disks. Applications will be in business data processing including payroll, accounting, inventory, file maintenance and simulation. Prerequisite: 50.311 or consent of instructor.

**50.331 PROBABILITY (3)** Probability in sample spaces, discrete and continuous random variables, distribution theory. Tchebyshev's theorem, central limit theorem, expected values, and moments. Prerequisite: 50.272 or 50.274. May be taken concurrently.

**50.332 MATHEMATICAL STATISTICS (3)** Sample theory and distributions, point estimation, confidence intervals, tests of hypotheses, regression, correlation, and analysis of variance. Prerequisite: 50.331.



**50.338 INTRODUCTION TO COMPUTER SCIENCE (3)** Selected topics from the following: history and background of computing, computer characteristics, organization and logic, the concept and properties of algorithms, addressing schemes, numerical and non-numerical applications, and a survey of computer language and systems. Prerequisite: 50.337 and the consent of instructor

**50.357 COLLEGE GEOMETRY (3)** Advanced Euclidean geometry including loci, pedal triangles, harmonic ranges, quadrangles, cyclic quadrilaterals, poles and polars, and inversion. Prerequisite: 50.261, and 50.271 or 50.273

**50.361 ALGEBRAIC STRUCTURES (3)** Groups, rings, fields, integral domains, polynomial rings, Peano axioms, and development of the real number systems. Prerequisite: 50.261.

**50.365 LINEAR ALGEBRA (3)** Matrices, vector spaces, determinants, systems of linear equations, linear transformations, characteristic vectors and values, canonical forms. Prerequisite: 50.361.

**50.367 THEORY OF NUMBERS (3)** Theory of prime numbers, the division algorithm, the Fundamental Theorem of Arithmetic, polynomials, congruences, number theoretic functions. Prerequisite: 50.261.

**50.371 CALCULUS III (3)** Indeterminate forms, infinite series, vector calculus of functions of one variable, differential calculus of functions of several variables. Prerequisite: 50.272.

**50.372 CALCULUS IV (3)** Vector differential calculus, multiple integration, vector integral calculus. Selected topics from among Fourier series, Laplace transforms, special functions, and differential equations. Prerequisite: 50.371.

**50.373 CALCULUS III (4)** Differential and integral calculus of functions of several variables; differential and integral calculus of vector valued functions, including the divergence and Stoke's theorems; selected topics from among Fourier series, Laplace transform, special functions and differential equations. Prerequisite: 50.274.

**50.421 MATHEMATICS EDUCATION FOR IN-SERVICE ELEMENTARY SCHOOL TEACHERS (4-4)** Selected topics in the teaching of elementary school mathematics. (Open only to in-service personnel in elementary education who have not had 50.204 or 50.205 or equivalent within the last 5 years.) Graduate credit only with prior approval of advisor.

**50.427 READINGS IN MATHEMATICS EDUCATION FOR THE ELEMENTARY SCHOOL TEACHER (1-3)** Directed study for the teacher of elementary school mathematics. Prerequisite: 50.321 or 50.323 and consent of instructor.

**50.429 READINGS IN MATHEMATICS EDUCATION FOR THE SECONDARY SCHOOL TEACHER (TBA)** Directed study for the teacher of secondary school mathematics. Prerequisite: Consent of instructor.

**50.435 NUMERICAL ANALYSIS I (3)** Error analysis, interpolations, numerical solution of algebraic equations and systems of algebraic equations, numerical integration and differentiation. Illustration and use of computer languages. Prerequisite: 50.371 or 50.274

**50.436 NUMERICAL ANALYSIS II (3)** Continuation of 50.435. Prerequisite: 50.435.

**50.451 MATH RESEARCH IN GRAPH THEORY (3)** A course designed to give an advanced mathematics major the opportunity to do independent, significant research in a field of mathematics through Graph Theory. (Topics will include Hamiltonian and Eulerian graphs, coloring graphs, planar and non-planar graphs, connectivity problems and isomorphic graphs.) Prerequisite: Consent of instructor.

**50.457 DIFFERENTIAL GEOMETRY I (3)** Curvatures of curves and surfaces in  $E_3$ , geodesics, invariants, mappings and special surfaces. Prerequisite: 50.371 or 50.373.

**50.458 DIFFERENTIAL GEOMETRY II (3)** Continuation of 50.457. Prerequisite: 50.457.

**50.461 ADVANCED TOPICS IN ALGEBRA (3)** Extension of the concepts of 50.361. Prerequisite: 50.361.

**50.462 HOMOLOGY THEORY (3)** Axioms and uniqueness of homology groups, singular homology theory, applications of the axioms, computations of homology groups.

**50.471 DIFFERENTIAL EQUATIONS (3)** Solutions of ordinary and partial differential equations. Prerequisite: 50.371 or 50.274.

**50.473 ADVANCED CALCULUS I (3)** Euclidean spaces, norms, compact and connected sets in metric spaces. Heine-Borel Theorem, Weierstrass Theorem, numerical sequences, and series, continuity and uniform continuity. Prerequisite: 50.371 or 50.261 and 50.274.

**50.474 ADVANCED CALCULUS II (3)** Differentiation, mean value theorem, differentiation of vector-valued functions, Riemann-Stieltjes Integral, sequences and series of functions, Stone-Weierstrass Theorem, and functions of several variables. Prerequisite: 50.473.

**50.475 COMPLEX ANALYSIS (3)**

**50.477 TOPOLOGY (3)** General topological spaces, limits, continuity, separation axioms, Hausdorff regular and compact spaces, distance functions, and metric spaces. Prerequisite: 50.473.

**50.491 READINGS IN MATHEMATICS (TBA)** Independent reading in selected areas of mathematics. Prerequisite: Consent of instructor.

### *Graduate Division*

**50.521 SEMINAR IN TEACHING ARITHMETIC (3)** Analysis of new topics, techniques, and materials in arithmetic instruction. Prerequisite: 50.321 or 50.323.

## Modern Languages

### *FRENCH COURSES (FREN)*

#### *Upper Division — Undergraduate and Graduate*

**32.325 (307) MASTERPIECES OF FRENCH LITERATURE IN TRANSLATION (3)** An intensive study of English translations of a limited selection of works chosen from the acknowledged masterpieces of French literature, presented in chronological order (not open to French majors). Prerequisite: ENGL 30.102.

**32.395 FRENCH PHONETICS (2)** The pronunciation of contemporary French; drill in pronunciation. Prerequisite: 32.201, 32.202.

**32.411 FRENCH LITERATURE OF THE MIDDLE AGES (3)** Selections from the major works of the period from the twelfth through the fifteenth centuries in Modern French Versions. Prerequisite: 32.321-322. Conducted in French.

**32.415 (405) FRENCH LITERATURE OF THE SIXTEENTH CENTURY (3)** Principal works of the major writers of the sixteenth century with special attention to Rabelais, the Pleiade, and Montaigne. Prerequisite: 32.321, 32.322 or equivalent. Conducted in French.

**32.421 (407) FRENCH LITERATURE OF THE SEVENTEENTH CENTURY (3)** Principal works of the major writers in poetry, drama, philosophy, criticism, and the novel, to about 1660. Prerequisite: 32.321, 32.322 or equivalent. Conducted in French.

**32.422 (408) FRENCH LITERATURE OF THE SEVENTEENTH CENTURY (3)** Continuation of 32.421 from 1660 to 1700. Prerequisite: 32.321, 32.322 or equivalent. Conducted in French.

**32.425 (409) FRENCH LITERATURE OF THE EIGHTEENTH CENTURY (3)** Principal works of the major writers with the concurrent literary and philosophical trends. Prerequisite: 32.321, 32.322 or equivalent. Conducted in French.

**32.431 (411) FRENCH LITERATURE OF THE NINETEENTH CENTURY (3)** The rise, flowering, and decline of Romanticism, with the contemporary writers outside the movement. Prerequisite: 32.321, 32.322 or equivalent. Conducted in French.

**32.432 (412) FRENCH LITERATURE OF THE NINETEENTH CENTURY (3)** The major literary figures and doctrines of the latter part of the nineteenth century. Prerequisite: 32.321, 32.322 or equivalent. Conducted in French.

**32.441 (413) FRENCH LITERATURE OF THE TWENTIETH CENTURY (3)** From Gide, Proust, Valéry, Peguy, and Claudel to the Second World War. Prerequisite: 32.321, 32.322 or equivalent. Conducted in French.

**32.442 (414) FRENCH LITERATURE OF THE TWENTIETH CENTURY (3)** Sartre, Camus, Anouilh, and other present-day writers. Prerequisite: 32.321, 32.322 or equivalent. Conducted in French.

**32.451-452 (425-426) FRENCH POETRY (3,3)** The development of French poetry from the Middle Ages to the present day. Conducted in French. Prerequisite: 32.321, 32.322

**32.461-462 (421-422) FRENCH DRAMA (3,3)** The development of French Drama from the Middle Ages to the present day. Conducted in French. Prerequisite: 32.321, 32.322

**32.471 THE FRENCH NOVEL (3)** From the seventeenth century to Flaubert (theory of the novel as a genre, the novel from Preciosite to "la Princesse de Cleves" in the seventeenth century, the picaresque and philosophical novel in the eighteenth century, Balzac and Stendhal in the nineteenth century). Prerequisite: 32.321, 32.322 or equivalent. Conducted in French.

**32.472 THE FRENCH NOVEL (3)** From Flaubert to the "Nouveau Roman" (evolution of the Novel from Flaubert to Proust, Gide, Malraux, Giono and the theories of the "Nouveau Roman," Robbe-Grillet and Butor). Prerequisite: 32.321, 32.322 or equivalent. Conducted in French.

**32.481 (427) THE CONTE (3)** Emphasis on the realists and some of the more recent authors. Prerequisite: 32.321, 32.322 or equivalent. Conducted in French.

**32.491 (451) DIRECTED READING IN FRENCH LITERATURE (3)** Reserved for superior students under the guidance of a departmental advisor. Prerequisite: At least three hours of literature study at the 400 level. Conducted in French.

**32.492 (452) DIRECTED READING IN FRENCH (3)** Similar to 32.491 with concentration on a different subject matter. Prerequisite: At least three hours of literature study at the 400 level. Conducted in French.

### *Graduate Division*

**32.501 (495) INTRINSIC PROBLEMS IN FRENCH LITERATURE (3)** Consideration of the literary work "in itself": matters of literary language and world-view; the possibilities and limitations of this sort of criticism; problems in bibliography. Prerequisite: 32.491 and consent of instructor. Conducted in French.

**32.502 (496) EXTRINSIC PROBLEMS IN FRENCH LITERATURE (3)** Consideration of the literary work as influenced by its cultural environment; the possibilities and limitations of this sort of criticism; problems in bibliography. Prerequisite: 32.491 and consent of instructor. Conducted in French.

**32.503 HISTORY OF THE FRENCH LANGUAGE (3)** A rapid survey of the major phenomena of French linguistic history. (Some knowledge of Latin is desirable.) Prerequisite: Undergraduate degree in French.

**32.505 FRENCH STYLISTICS (3)** Practice in writing and comparison of style of various writers. Intensive and detailed explanations de texte. Discussion, oral and written reports. Prerequisite: Undergraduate degree in French.

**32.535 HISTORY OF OLD FRENCH LITERATURE (3)** The history of French literature from the eleventh to the fifteenth centuries, with illustrative readings. Prerequisite: Undergraduate degree in French.

**32.536 FRENCH LITERATURE OF THE RENAISSANCE (3)** Seminar on French Literature of the sixteenth century, concentrating on one or two major writers, with shifting emphasis from year to year. Prerequisite: Undergraduate degree in French.

**32.537 SEMINAR ON FRENCH CLASSICISM (6)** The origins and underlying ideas of classicism. Study of main classic writers, with shifting emphasis from year to year. Prerequisite: Undergraduate degree in French.

**32.538 SEMINAR IN EIGHTEENTH CENTURY FRENCH LITERATURE (3)** The Literature of the French Enlightenment concentrating on one or two major authors, with shifting emphasis from year to year. Prerequisite: Undergraduate degree in French.

**32.539 THE ROMANTIC ERA IN FRANCE (3)** Sources and theories of French romanticism. Works of major French romantic writers, with shifting emphasis from year to year. Prerequisite: Undergraduate degree in French.

**32.540 THE LATE NINETEENTH CENTURY IN FRANCE (3)** A study of the main writers of the later nineteenth century, with shifting emphasis from year to year. Prerequisite: Undergraduate degree in French.

**32.541 PERSPECTIVES IN 20TH CENTURY FRENCH LITERATURE I (3)** Critical study of a major twentieth century writer. Prerequisite: Consent of Instructor.

**32.542 PERSEPECTIVES IN 20TH CENTURY FRENCH LITERATURE II (3)** Critical study of a major or twentieth century writer (2nd semester - contemporary) with shifting emphasis from year to year. Prerequisite: B.A. Degree in French or consent of instructor.

**32.543 CRITICAL APPROACHES TO FRENCH LITERATURE (6)** A history of French literary criticism leading to the study of the various techniques and objectives of all literary criticism and analysis, eventuating in the application of these techniques by the student himself to selected works of French literature. Prerequisite: Undergraduate degree in French.

**32.555-558 FRENCH REALISM AND NATURALISM (3,3)** The main works of Balzac, Stendhal, Flaubert, Les Goncourt, Zola, Maupassant and Daudet with shifting emphasis from year to year. Prerequisite: Consent of instructor. Conducted in French.

### **GERMAN COURSES (GERM)**

#### ***Upper Division — Undergraduate and Graduate***

**36.325 (307) MASTERPIECES OF GERMAN LITERATURE IN TRANSLATION (3)** An intensive study of English translations of a number of acknowledged masterpieces of German literature. Not open to German majors. Prerequisite: ENGL 30.102.

**36.411 (407) MEDIEVAL GERMAN LITERATURE (3)** Special emphasis on the flowering period of epic and lyric poetry. Readings are in New High German translation. Prerequisite: 36.321-322 or equivalent. Conducted in German.

**36.421 (409) HUMANISM, REFORMATION AND THE BAROQUE (3)** A survey of the philosophy and literature from the end of the Middle Ages to 1750. Prerequisite: 36.321-322 or equivalent. Conducted in German.

**36.425 (411) PRE-CLASSICISM (3)** German literature from the end of the Baroque to the beginnings of Classicism. Focus on the Aufklärung and *Sturm und Drang*. Prerequisite: 36.321-322 or equivalent. Conducted in German.

**36.427-428 (413-414) CLASSICISM (3,3)** First semester: the beginnings of German classicism: Goethe, Schiller, Lessing; second semester: the later works of Goethe and Schiller. Prerequisite: 36.321-322 or equivalent. Conducted in German.

**36.431 (415) ROMANTICISM (3)** German literature during the Romantic era (1790-1830). Hölderlin, Novalis, Tieck, Brentano, Grillparzer. Prerequisite: 36.321-322 or equivalent. Conducted in German.

**36.432 (417) REALISM (3)** A study of German literary realism from the Vormärz through Poetic Realism. Heine, Büchner, Hebbel, Wagner, Keller, Fontane. Prerequisite: 36.321-322 or equivalent. Conducted in German.

**36.441 (423) MODERN GERMAN LITERATURE (3)** The modern masters: Kafka, Mann, Hesse, Rilke, Brecht. Prerequisite: 36.321-322 or equivalent. Conducted in German.

**36.442 (424) GERMAN LITERATURE SINCE 1945 (3)** Themes and movements since World War II. Poetry: Eich, Enzensberger, Celan, Bachmann; prose fiction: Böll, Grass; drama: Borchert, Dürrenmatt, Frisch. Prerequisite: 36.321-322 or equivalent. Conducted in German.

**36.451 (425) STUDIES IN THE GERMAN LYRIC (3)** Focus on a particular period, movement or author, to be determined after consultation with majors. Prerequisite: 36.321-322 or equivalent. Conducted in German.

**36.461 GERMAN DRAMA OF THE 19th AND 20th CENTURIES (3)** The development of modern German drama in the successive literary movements, beginning with Kleist. Prerequisite: 36.321-322 or equivalent. Conducted in German.

**36.465 (441) GOETHE'S FAUST (3)** A study of the background, themes and structures of this masterpiece. Prerequisite: 36.321-322 or equivalent. Conducted in German.

**36.471 (429) THE GERMAN NOVEL (3)** A study of the origins and development of the genre in German literature. Prerequisite: 36.321-322 or equivalent. Conducted in German.

**36.481 THE GERMAN NOVELLE (3)** The theory and development of the *Novelle* in German literature from Goethe to the present. Prerequisite: 36.321-322 or equivalent. Conducted in German.

**36.491-492 (451-452) DIRECTED READINGS IN GERMAN LITERATURE (3,3)** Reserved for superior students under the guidance of a departmental advisor. Content related to student's previous program. Prerequisite: At least three hours of study at the 400 level.



## SPANISH COUSES (SPAN)

### *Upper Division — Undergraduate and Graduate*

**82.325 MASTERPIECES OF SPANISH LITERATURE IN TRANSLATION (3)** An intensive study of English translations of a limited selection of works chosen from the acknowledged masterpieces of Spanish literature, presented in chronological order (not open to Spanish majors) Prerequisite: English 30 102

**82.417-418 (405) THE GOLDEN AGE IN SPANISH LITERATURE (3,3)** Principal attention to Cervantes, Tirso de Molina, Lope de Vega, and Ruiz de Alarcón. Gongora and his role Prerequisite: 82.321-322 or equivalent Conducted in Spanish

**82.431 (411) NINETEENTH CENTURY SPANISH LITERATURE (3)** The main literary movements of the century: neo-classicism, romanticism, realism, naturalism, and special emphasis on "costumbrismo" Prerequisite: 82.321-322 or equivalent Conducted in Spanish

**82.435 NINETEENTH CENTURY SPANISH AMERICAN LITERATURE (3)** Principal works of the major writers to about 1860 Prerequisite: 82.321, 82.322 or equivalent Conducted in Spanish

**82.436 NINETEENTH CENTURY SPANISH AMERICAN LITERATURE (3)** Principal works of the major writers from 1860 to 1900. Prerequisite: 82.321, 82.322 or equivalent Conducted in Spanish

**82.441 (413) TWENTIETH CENTURY SPANISH LITERATURE (3)** Special attention to the literary movement called "The Generation of '98" Prerequisite: 82.321, 82.322 or equivalent Conducted in Spanish

**82.442 (414) TWENTIETH CENTURY SPANISH LITERATURE (3)** The writers of the last thirty years. Prerequisite: 82.321, 82.322 or equivalent Conducted in Spanish

**82.443 TWENTIETH CENTURY SPANISH AMERICAN LITERATURE (3)** Modernism to the Contemporary Period Prerequisite: 82.321, 82.322 or equivalent Conducted in Spanish

**82.444 TWENTIETH CENTURY SPANISH AMERICAN LITERATURE (3)** The Contemporary Period Prerequisite: 82.321, 82.322 or equivalent Conducted in Spanish

**82.451 (425) SPANISH POETRY (3)** Special emphasis on Gustavo Adolfo Becquer, Ruben Dario, Antonio Machado. Prerequisite: 82.321, 82.322 or equivalent Conducted in Spanish

**82.452 (426) SPANISH POETRY (3)** Emphasis on the poets of the generation of 1927. Pablo Neruda, and Vicente Aleixandre. Prerequisite: 82.321, 82.322 or equivalent Conducted in Spanish

**82.461 (421) SPANISH DRAMA (3)** Nineteenth and early twentieth century Prerequisite: 82.321, 82.322 or equivalent Conducted in Spanish

**82.462 (442) SPANISH DRAMA (3)** Contemporary playwrights such as Casona, Usigli, and Vallejo. Prerequisite: 82.321, 82.322 or equivalent Conducted in Spanish

**82.471 (423) SPANISH NOVEL (3)** Emphasis will be given to Benito Perez Galdos and Pio Baroja Prerequisite: 82.321, 82.322 or equivalent Conducted in Spanish

**82.472 (424) SPANISH NOVEL (3)** Emphasis on contemporary writers including Camilo Jose Cela, Miguel Angel Asturias, Ramon Sender, Juan Goytisolo Prerequisite: 82.321, 82.322 or equivalent Conducted in Spanish

**82.481 (427) SPANISH SHORT STORY (3)** The short story in Spain and Spanish America with emphasis on twentieth century authors Prerequisite: 82.321, 82.322 or equivalent Conducted in Spanish

**82.491 (451) DIRECTED READING IN SPANISH LITERATURE (3)** Reserved for superior students under the guidance of departmental adviser Prerequisite: At least three hours of literature study at the 400 level. Conducted in Spanish

**82.492 (452) DIRECTED READING IN SPANISH (3)** Similar to 82.491 with concentration on a different subject matter Prerequisite: At least three hours of literature study at the 400 level. Conducted in Spanish

### *Graduate Division*

**82.501 (495) INTRINSIC PROBLEMS IN SPANISH LITERATURE (3)** Consideration of the literary work "in itself"; matters of literary language and world-view; the possibilities and limitations of this sort of criticism; problems in bibliography Prerequisite: 82.491 and consent of instructor Conducted in Spanish



**82.502 (496) EXTRINSIC PROBLEMS IN SPANISH LITERATURE (3)** Consideration of the literary work as influenced by its cultural environment; the possibilities and limitations of this sort of criticism; problems in bibliography. Prerequisite: 82.491 and consent of instructor. Conducted in Spanish.

**82.521 SEMINAR IN UNAMUNO (3)** Life's tragedy: Conflict between reason and faith as shown in his novels, theatre, essays, and poetry. Conducted in Spanish. Prerequisite: Eighteen hours credit of Spanish beyond intermediate or consent of instructor.

**82.536 POETRY AND DRAMA OF THE SPANISH GOLDEN AGE (3)** Graduate study of major writers of the Siglo De Oro, with shifting emphasis from year to year. Prerequisite: B.A. degree in Spanish.

## Music

### MUSIC COURSES (MUSC)

#### *Upper Division — Undergraduate and Graduate*

**54.401 (403) MUSIC PRIOR TO 1600 (3)** The art of music in the West from its tentative beginnings in Greek and Hebrew music to the year 1600 A.D. Prerequisite: Consent of Department Chairman.

**54.402 (404) MUSIC OF THE BAROQUE PERIOD (3)** Style, forms and musical techniques from 1600 to 1750. Prerequisite: Consent of Department Chairman.

**54.403. (405) MUSIC OF THE CLASSICAL PERIOD (3)** Styles, forms and techniques of the period from 1750-1820. Particular emphasis is placed on instrumental categories of the string quartet, sonata, symphony and concerto as illustrated in the works of Haydn, Mozart and Beethoven. Attention is given to operatic and sacred compositions of the same masters. Prerequisite: Consent of department chairman.

**54.405 (406) MUSIC OF THE ROMANTIC PERIOD (3)** Musical styles, forms and techniques in the nineteenth century with special attention to the intellectual foundations of the Romantic movement. Prerequisite: Consent of department chairman.

**54.505 (407) CONTEMPORARY MUSIC (3)** Styles, forms and musical techniques since 1900. Prerequisite: Consent of department chairman.

**54.407 MUSIC IN THE ELEMENTARY SCHOOL — ADVANCED (3)** Seminar in teaching techniques and problems of elementary school music; application of theory via work with children. After initial meeting, class meets at off-campus teaching center.

**54.408 (400) ORGANIZATION AND ADMINISTRATION OF MUSIC EDUCATION (3)** Seminar discussion of the problems of organization and administration of music education. Prerequisite: Music Student Teaching, and/or consent of instructor.

#### **54.409 TEACHING OF STRINGED INSTRUMENTS I (3)**

#### **54.410 TEACHING OF STRINGED INSTRUMENTS II (3)**

**54.411 (412) SURVEY OF OPERA (3)** Study of opera literature of various periods and styles. Consent of department chairman.

**54.413 (245) SYMPHONIC LITERATURE (3)** Orchestral music from the baroque to the present. The concerto, symphony, overture and other orchestral forms are examined. Prerequisite: Consent of department chairman.

**54.421 (413) AMERICAN MUSIC (3)** American music from the Colonial Period to the present. Prerequisite: Consent of department chairman.

**54.423 (414) HISTORY OF JAZZ (3)** Development of jazz and its peripheral effects upon music.

**54.425 (424) ADVANCED PERCUSSION (3)** Study of advanced performance techniques on all percussion instruments. Prerequisite: 54.215, or consent of instructor.

**54.427-428 JAZZ ARRANGING (3,3)** Study and practice of arranging of standard material for Jazz Ensembles.

**54.429-430 JAZZ IMPROVISATION (3,3)** Study and practice of improvising in various jazz styles. Prerequisite: 54.231-232 or consent of instructor.

**54.433 (423) ADVANCED THEORY (3)** Continued development of skills in more advanced melodic, harmonic and rhythmic aspects of music through hearing, playing and writing. Prerequisite: Theory

**54.435 (425) FORM AND ANALYSIS (3)** Analysis of vocal and instrumental literature. Prerequisite: 54.335

**54.471-488 (450) PRIVATE LESSONS (1-3)** Refer to MUSIC 171-186 for course description, fee and time.

### *Graduate Division*

**54.501 CURRENT TRENDS IN MUSIC AND MUSIC EDUCATION (3)** A survey of current philosophies and objectives of music in the schools, and the scope and sequence of the music curricula, vocal and instrumental, on the elementary and secondary levels

**54.535 (524) ADVANCED CHORAL AND INSTRUMENTAL ARRANGING (3)** Advanced arranging techniques including the scoring of original and other works for various combinations of instruments and/or voices. Prerequisite: 54.335, or equivalent, or consent of instructor.

**54.539 MUSIC COMPOSITION (3)** Analysis and discussion of works of major composers. Writing of original compositions in vocal and instrumental idioms. Prerequisite: 54.201-202, 54.331-332, 54.335-435.

**54.561 SEMINAR INSTRUMENTAL MUSIC (3)**

**54.562 SEMINAR IN CHORAL (VOCAL) MUSIC (3)** Comparative analysis of current methods and materials used in schools and colleges. Choral conducting and repertoire. Style, interpretation, tone quality, diction, rehearsal and conducting techniques are analyzed

**54.571-588 (550) PRIVATE LESSON (1-3)** Refer to 54.171-186 for course description, fee and time.

**54.595 (550) RESEARCH METHODS IN MUSIC AND MUSIC EDUCATION (3)** The application of methods of research to problems in the field of music and music education, the preparation of bibliographies and specialized techniques for the location, collection and treatment of data. The written exposition of research projects in the area of the student's major interest.

**54.699 (590) MASTER'S THESIS IN MUSIC**

### *EDUCATION MUSIC*

#### *Upper Division — Undergraduate and Graduate*

**54.407 MUSIC IN THE ELEMENTARY SCHOOL — ADVANCED (3)** Seminar in teaching techniques and problems of elementary school music; application of theory via work with children. After initial meeting, class meets at off-campus teaching center.

**54.408 (400) ORGANIZATION AND ADMINISTRATION OF MUSIC EDUCATION (3)** Seminar discussion of the problems of organization and administration of music education. Prerequisite: Music Student Teaching, and/or consent of instructor.

**54.491 (480) INSTRUMENTAL WORKSHOP (2)** Reading of new band publications. To give the band director an opportunity to hear new publications for band, and to serve as a conducting laboratory for students and directors. Prerequisite: Consent of instructor.

## Philosophy and Religion

### *PHILOSOPHY AND RELIGION COURSES (PHIL)*

#### *Upper Division — Undergraduate and Graduate*

**58.321 (321) PRE-SOCRATIC AND CLASSICAL GREEK PHILOSOPHY (3)**

**58.322 (322) LATE CLASSICAL AND MEDIEVAL PHILOSOPHY (3)** Prerequisite: 58.101 or 58.321.

**58.323 (323) RENAISSANCE TO 17TH CENTURY PHILOSOPHY (3)** Prerequisite: 58.101 or 58.321.

**58.324 (324) 18TH AND 19TH CENTURY PHILOSOPHY (3)** Prerequisite: 58.101 or 58.321.

**58.325 (325) SCHOOLS OF CONTEMPORARY PHILOSOPHY (3)** A survey with varying emphases on a number of such contemporary philosophical positions as pragmatism, phenomenology, logical positivism, the analysts, neo-Aristotelianism, the philosophers of science, and the existentialists. Prerequisite: 58 101 or 58 321

**58.401 (401) THEORY OF KNOWLEDGE (3)** An historical and systematic approach to the truth value and elements of the forms of human knowledge. The theories of major philosophers will be studied.

**58.403 (403) ETHICS (3)** Analysis of reading from the principle classical and contemporary ethical sources; study of the basic moral concepts as found in these sources, applications to contemporary moral concerns

**58.405 (405) AESTHETICS (3)** An analytic and historical examination of concepts of the nature of art, beauty, aesthetic value, aesthetic perception, and of the modes of existence of artifacts.

**58.409 (409) PHILOSOPHICAL SYSTEMS (3)** The study of a major philosophical system or position, classical or modern, and of its important proponents. Prerequisite: 58 203, one other lower level course in philosophy, and consent of the department

**58.411 (411) PHILOSOPHICAL PROBLEMS (3)** A consideration of one of the perennial interests of philosophy. Prerequisite: 58 203, one other lower level course in philosophy, and consent of the department.

**58.451 (451) PHILOSOPHY OF RELIGION (3)** Exposition of various approaches to the philosophy of religion with an analysis of the major issues on which they differ and agree.

**58.453 (453) PHILOSOPHY OF THE BIBLICAL LIBERATION: THE OLD TESTAMENT (3)** Major themes of the Biblical Literature, and its religious, philosophical and cultural implications.

**58.454 (454) NEW TESTAMENT LITERATURE (3)** Major themes of the Biblical Literature, and of its religious, philosophical and cultural implications.

**58.455 (455) HELLENISTIC ERA (3)** Three significant phases of the preparation of the Mediterranean world for the Hebraic-Hellenic synthesis. (1) Judaism, (2) Hellenism, and (3) the Roman conquest. Contribution of archeology will be indicated

**58.457 (457) COMPARATIVE RELIGIONS (3)** Religions of primitive, and civilized people, including an historical and comparative study of the great religions of the world, both ancient and modern.

**58.459 (459) RELIGION IN AMERICA (3)** Ideas and forms of organization of Protestantism, Catholicism, and Judaism in the United States.

**58.461 HISTORICAL GEOGRAPHY AND ARCHAEOLOGY OF PALESTINE (3)** An assessment of the role of geographical, archaeological and historical disciplines, used conjointly, in Biblical interpretation. Prerequisite: Any of the following — 58 321, 58 322, 58 323, 58 324, 58 325 or HIST 40 101, 40.102, 40 263 or consent of department

**58.495 (495) RESEARCH TUTORIAL IN PHILOSOPHY (3)** Directed readings and research leading to a thesis paper under one or more members of the department. Open only to philosophy majors or students with demonstrated competency

## Physical Education

### PHYSICAL EDUCATION COURSES (PHED)

\* Prefix for co-education is 60, prefix for men is 61; prefix for women is 62.

#### *Upper Division — Undergraduate and Graduate*

**412 THEORY AND ANALYSIS OF GYMNASTICS MOVEMENT (3)** Theoretical and practical application of mechanical analysis of movement concepts as related to proper execution of skills in gymnastics. The techniques and methods used in this course are designed to provide the teacher a logical system for presenting gymnastic skills to facilitate learning for the student; to demonstrate that gymnastic skills are logically founded on basic physics or terrestrial mechanics; to present aiding and spotting techniques

**419 SWIMMING AND POOL MANAGEMENT (2)** An advanced course in teaching methods for all levels of swimming and diving. Modern methods of training the competitive swimmer with emphasis on technique and conditioning of the individual. The organization and administration of swimming pools and clubs with regard to staff, recreation and pool filtration. Prerequisite: Senior lifesaving and Water Safety Instructors. This is a certifiable course for pool management, approved by the Department of Health, Baltimore County.

**421 PHYSICAL EDUCATION PROGRAM IN THE ELEMENTARY SCHOOLS (3)** Aims of the physical education program, appropriate outcomes of different age levels and the selection and use of materials that contribute to the accomplishment of these objectives. Prerequisite: 101, 159, 201, 202 or 161-197.

**425 MODERN DANCE IN THE SECONDARY SCHOOL (3)** Dance techniques and elements of composition for the secondary school teacher. Not open to those who have taken Modern Dance Composition. Prerequisite: Consent of instructor.

**430 MOVEMENT EDUCATION IN THE ELEMENTARY SCHOOL (3)** Application of problem solving and individualized methods to teaching of movement for the elementary school child. Development of programs and materials for teaching educational gymnastics, creative dance and games and sports. Survey of current literature. LAB FEE \$5.

### *Graduate Division*

**512 SIGNIFICANT PERIODS IN PHYSICAL EDUCATION (3)** An examination of the influence of Greek, Roman, European, and English concepts of physical education. Emphasis on the formation and development of American concepts of physical education. Prerequisite: Undergraduate degree with a major in Health and Physical Education or consent of instructor.

**533 ADMINISTRATION AND SUPERVISION OF PHYSICAL EDUCATION (3)** Designed to acquaint the student with the scope, problems and techniques of administering and supervising a program of physical education. The work of the chairman of the department, problems of personnel, program, facilities, and evaluation will be discussed. Prerequisite: Undergraduate degree in Physical Education and consent of instructor.

## Physical Sciences

### *CHEMISTRY COURSES (CHEM)*

#### *Upper Division — Undergraduate and Graduate*

**22.341-342 PHYSICAL CHEMISTRY (4,4)** Solid, liquid and gaseous state principles treated with more rigor than possible in elementary courses. Mathematical analysis of chemical systems. Three lecture hours and one three-hour laboratory period. Prerequisite: 22.211, MATH 50.272 or concurrently, PHYS 66.222 or 66.212.

**22.351-352 BIO-CHEMISTRY (4,4)** Structure and properties of the constituents of living matter, including proteins, carbohydrates, lipids, nucleic acids, enzymes and vitamins. Chemical reactions, properties and the mechanisms involved in their synthesis and metabolism associated with biological processes. Three lecture hours and one three-hour laboratory period. Prerequisite: 22.231.

**22.381 MODERN CONCEPTS OF CHEMISTRY (4)** Principles of modern chemistry including some inorganic, organic, analytical, and physical chemistry in an integrated treatment. Primarily for secondary school science teacher. Three lecture hours and one three-hour laboratory period. Prerequisite: 22.102 or 22.104 and two other science courses.

**22.382 STATISTICAL TREATMENT OF CHEMICAL DATA (3)** Designed to develop skill in chemistry students and those in related fields in the application of simple statistical procedures and tables to laboratory data. One two-hour lecture and one three-hour laboratory period. Prerequisite: High school algebra, an aptitude for logic and arithmetic is desirable. A course in quantitative analysis is recommended.

**22.391 SPECIAL PROBLEMS IN CHEMISTRY (1-3)** A laboratory of library problem in any particular area of chemistry to be selected by the student in consultation with the instructor. Students are required to submit a written report. May be repeated for credit as CHEM 22.392, 22.393, etc. Prerequisite: Written consent of instructor

**22.411 INSTRUMENTAL METHODS OF ANALYSIS (4)** Theory, instrumentation, and application of various electrochemical, chromatographic, spectroscopic, and spectrophotometric techniques to chemical analysis. Two lecture hours and one six-hour laboratory period. Prerequisite: 22.211, 22.341, and 22.342 or concurrently.

**22.412 INSTRUMENTAL ANALYTICAL CHEMISTRY (4)** Instruments introduced in 22.212 are reconsidered with the application of Physical Chemistry 22.341. Interpretation of typical data generated by the use of NMR, ESR, MS, and x-rays, and other recent developments in instrumental methods of analysis. Two one-hour lectures and two three-hour laboratory periods. Prerequisite: 22.212, 22.341. PHYS 66.311 is recommended.

**22.422 INORGANIC CHEMISTRY (4)** Nuclear and extranuclear structure, molecular orbital and ligand field theories, aqueous and non-aqueous reactions, coordination chemistry, inorganic synthesis, modern instrumentation, etc. Three lecture hours and one three-hour laboratory period. Prerequisite: 22.342 or concurrently.

**22.431 ADVANCED ORGANIC CHEMISTRY LABORATORY (2)** Methods of organic synthesis. Emphasis on general types of organic reactions, relying, in part, on original literature sources. Includes considerable individual instruction in laboratory techniques and in the use of equipment and instruments. Two three-hour laboratory periods. Prerequisite: 22.232.

**22.432 ADVANCED ORGANIC CHEMISTRY (3)** Review of fundamentals. Advanced treatment of selected topics in organic chemistry. Typical subject matter areas: (1) reaction mechanisms; (2) structure elucidation; (3) stereochemistry; (4) linear free energy relationships; (5) molecular orbital calculations. Three lecture hours. Prerequisite: 22.232, 22.342 or concurrently.

**22.452 ADVANCED BIOCHEMISTRY (3)** Reactions and mechanisms involving the synthesis and metabolism of the constituents of living matter. A consideration of biological function on the basis of fundamental principles of chemical thermodynamics and kinetics. Buffers, osmometry, chromatography and spectrophotometry are presented as applied to biochemical systems. Three lecture hours. Prerequisite: 22.351.

**22.453 ADVANCED BIOCHEMISTRY LABORATORY (2)** Basic laboratory techniques involving the synthesis, isolation, purification, identification, and further reactions of substance in biochemical systems. Two three-hour laboratory periods. Prerequisite: 22.351.

**22.491-492 INTRODUCTION TO RESEARCH IN CHEMISTRY I, II (1-3)** An individual laboratory and/or library investigation in research interest of an instructor. May be repeated for credit as 22.492, 22.493, 22.494, etc. At the completion of a project, the student is required to give a public seminar on the work done and the principles involved. The vote of the chemistry faculty present in the seminar will be considered by the research supervisor in assigning final grades. Prerequisite: Consent of instructor.

## *PHYSICAL SCIENCE COURSES (PHSC)*

### *Upper Division — Undergraduate and Graduate*

**64.303 EARTH-SPACE SCIENCE IN CHILDHOOD EDUCATION (3)** Physical Sciences principles applied in the study of Earth and Space. Emphasis on the individualized experimental and discovery approach. Prerequisite: 64.101.

**64.334 STILL PHOTOGRAPHY (3)**

**64.401 ADVANCED LABORATORY IN PHYSICAL SCIENCE (2)** Exacting laboratory work of an advanced nature under the guidance of the Physical Sciences Department staff. Each student will present and defend his work at a seminar. Prerequisite: Consent of instructor.

**64.405 FUNDAMENTAL CONCEPTS IN THE EARTH SCIENCES (3)** Principles of astronomy, geology and related earth sciences. Methods of investigation employed by earth scientists. Observations in the planetarium and field studies in the Baltimore area. Two lecture hours and one two-hour laboratory period. Prerequisite: 64.101 or equivalent. No credit allowed if student has taken 64.211 and/or 64.121.

**64.495 COURSE RESEARCH IN 400-LEVEL COURSES**



## PHYSICS COURSES (PHYS)

### Upper Division — Undergraduate and Graduate

**66.301 MECHANICS (3)** Systems of coordinates and kinematic components of motion. Newtonian dynamics of particles and linear systems, including planetary motion and oscillations in damped and undamped systems, virtual work, generalized coordinates and Lagrange's equations, Hamilton's principle with elementary applications of least action, varying action and the canonical equations. Some nonlinear effects will be introduced. Three lecture hours. Prerequisite: 66 222 or 66 212 and MATH 50 272

**66.302 THERMODYNAMICS AND KINETIC THEORY (3)** Principles and laws of classical thermodynamics applied to simpler irreversible processes, including chemical, elastic, electric and magnetic phenomena, thermodynamic functions and Maxwell's relations, the conservation equations in elementary kinetic theory; fluctuations and irreversible transfer effects. This course may be taken concurrently with 66 212 or 66 222 by permission. Three lecture hours. Prerequisite: 66 212 or 66 222.

**66.305 ELECTRICITY AND MAGNETISM (3)** The first semester covers the integral theorems of Gauss and Stokes as applied to electrostatics and magnetostatics, diamagnetism and paramagnetism, steady and transient current effects, alternating currents, conduction in gases, photo-electricity, and electron theories of solid state phenomena. Three lecture hours. Prerequisite: 66 212 or 66 222 and MATH 50 272

**66.306 ELECTRICITY AND MAGNETISM (3)** The classic treatment of Maxwell-Lorentz electromagnetic and propagation effects, the special theory of relativity, introduction to microwaves and wave guides, plasma physics and magnetohydrodynamics. Three lecture hours. Prerequisite: 66.305

**66.311 MODERN PHYSICS (3)** The specific details of this course will be changed from time to time as necessitated by student interests and needs. In general, the intermediate principles and applications of relativity, quantum physics, elementary particles, nuclear physics and solid state theory will serve as the foundation for additional specialized developments of current interest. Three lecture hours. Prerequisite: 66 222 or 66 212 and MATH 50 272

**66.313 HISTORY AND PHILOSOPHY OF PHYSICS (2)** The works of Sarton, Cohen, Singer and Dampier on the history and significance of physical concepts. The philosophical concepts of Bridgman, Russell, Heisenberg and other contemporaries interpreted in the historical development. Two lecture hours.

**66.321 INTRODUCTORY MATHEMATICAL PHYSICS (3)** As the mathematical maturity of the students will allow, selected topics will be examined such as the generalized expressions for forces and potentials, vector analysis, applications of Fourier series and complex variables, and solutions of the harmonic oscillator and wave equations. Three lecture hours. Prerequisite: 66 222 or 66 212, MATH 50 371 or concurrently

**66.335 BASIC ELECTRONICS (4)** Circuit components, characteristics of semiconductors, electrical measurements, method of circuit analysis, electronic devices. Two lecture hours and two three-hour laboratory periods. Prerequisite: 66 212 or 66 222 or consent of instructor

**66.385 MECHANICS AND HEAT (3)** Equilibrium of rigid bodies; moments of inertia, laws of angular motion, physical and torsional pendulums, servomechanisms, surface tension; vapor pressure and hygrometry; viscosity of fluids, continuous flow calorimetry, thermal conductivity, black-body radiation, acoustics. Prerequisite: 66 301 or concurrently

**66.386 MODERN PHYSICS (3)** Millikan oil drop experiment, e, m measurement, photoelectric effect, electron diffraction, Franck-Hertz experiment, radioactivity, lasers, soft x-ray and additional specialized developments of current interests. Prerequisite: 66.311 or concurrently

**66.387 ELECTRICITY AND OPTICS (3)** Kirchhoff's laws, potential differences, galvanometer measurements; resistance thermometers; fuel cells; thermoelectricity; indices of refraction — of lenses. Interference effects, spectroscopy. Prerequisite: 66 305 or concurrently

### 66.395 COURSE RESEARCH IN 300-LEVEL COURSES

**66.401-402 PHYSICS SEMINAR (1, 1)** Students participate in colloquia on topics of current interests in physics research under guidance of instructor. One lecture hour. Prerequisite: Consent of instructor

**66.411 PHYSICAL OPTICS (3)** Electromagnetic theory of light, wave solutions, interference, diffraction, scattering, radiation from coherent and incoherent sources, elementary theory of masers and lasers. Three lecture hours. Prerequisite: 66 306 or consent of instructor

**66.425 BASIC ELECTRONICS (4)** Circuit components, characteristics of semi conductors, electrical measurements, method of circuit analysis, electronic devices. Prerequisite: 66 212, 66 222 or consent of instructor. Every Summer.

**66.435 ELECTRONICS (3)** Principles of transistors with emphasis on their design and construction and an introduction to logic circuits. Two lecture hours and one two-hour laboratory. Prerequisite: 66 306, 66 335

**66.471 INTRODUCTION QUANTUM MECHANICS (3)** The Schroedinger equation, states of one particle in one dimension, potential barrier problems in one dimension, the harmonic oscillator, system of particles in one dimension, motion in three dimensions, angular momentum, spin, applications to atomic physics. Prerequisite: 66 301, MATH 50 372.

**66.472 INTRODUCTION TO STATISTICAL MECHANICS (3)** Distribution functions, micro-canonical, canonical and grand canonical ensembles, the partition function and thermodynamic relations, Fermi-Dirac and Bose-Einstein statistics, some simple models and applications, the Maxwell-Boltzmann transport equation and the hydrodynamic equation, transport coefficients. Prerequisite: 66 471.

### *SCIENCE EDUCATION COURSES (SCIE)*

**76.376 TEACHING SCIENCE IN ELEMENTARY SCHOOL (3)** The significance and scope of science in all grades.

**76.380 TEACHING SCIENCE IN THE SECONDARY SCHOOL (3)** Selection of appropriate content, method and evaluation techniques, analysis of textbooks and resource materials

**76.488 (26.488) AEROSPACE EDUCATION WORKSHOP (3)** In cooperation with CAP, USAF, NASA and others. A fund of general knowledge about aviation and space exploration, their impacts, and the development of resources for uses in teaching. Field trips, two of which may extend all day. Air and ground transportation by the college and cooperating agencies. For elementary and secondary school teachers, supervisors, administrators and students in these fields.

**76.585 SEMINAR IN ELEMENTARY SCHOOL SCIENCE (3)** Seminar approach to current practices and trends in organizing, teaching and improving programs in elementary school science. A seminar based on action research is required. Prerequisite: At least three basic science courses and elementary school teaching experience.

## Psychology

### *PSYCHOLOGY COURSES (PSYC)*

#### *Upper Division — Undergraduate and Graduate*

**70.305 (308) PSYCHOLOGY OF LEARNING (3)** Analysis of selected problems in both human and animal learning including reinforcement, punishment, verbal learning and verbal behavior. Prerequisite: 70.261

**70.306 (309) ADVANCED LEARNING (3)** Reading, lectures and discussions from contemporary learning theory and research. Prerequisite: 70.305

**70.315 (303) MOTIVATION (3)** Theories of motivation, motivational antecedents, and the consequences of such antecedents on instrumental behavior, learning and perception. Prerequisite: Six hours of psychology courses

**70.321 (407) ADOLESCENT PSYCHOLOGY (3)** Physical, emotional, intellectual development during adolescence; social development and heterosexuality; adolescent personality; problems of adjustment, juvenile delinquency. Prerequisite: 70.211.

**70.330 (304) PSYCHOLOGY OF INDIVIDUAL DIFFERENCES (3)** Individual differences in human traits and characteristics; methodology, basic principles, and major findings in research. Prerequisite: 70 101 and 70.111.

**70.350 (305) PERSONALITY (3)** Theoretical and practical approaches to the study of personality. Introduction to psychodynamics and to methods and materials of assessment. Prerequisite: Six hours of psychology courses.

**70.361 (306) ABNORMAL PSYCHOLOGY (3)** Disordered personal reactions to life. Organic and functional phenomena plus therapeutic techniques. Prerequisite: Nine hours of psychology courses.

**70.370 (331) FOUNDATIONS OF REHABILITATION COUNSELING (3)** The development of rehabilitation programs, their legal basis and historical background. The role of medical, psychological, educational and community resources in the rehabilitation program are explored. Client eligibility, determination, and counselor responsibilities will be reviewed. Spring. Prerequisite: 70.101.

**70.381 (391) READINGS IN PSYCHOLOGY (1-2)** (Honors) A survey of relevant research literature under the guidance of a staff member who will direct the students' research. Prerequisite: 70.261 or consent of instructor.

**70.385 (385) SEMINAR IN PSYCHOLOGY (1-3)** (Honors) Survey and critical evaluation of modern literature pertaining to selected problems in Psychology. Prerequisite: 70.261 or consent of instructor.

**70.411 (410) TESTS AND MEASUREMENTS (3)** Psychological and educational testing and evaluation. The construction, administration, interpretation and use of the various evaluative devices of aptitude and achievement. Prerequisite: 70.101 and 70.111.

**70.416 (411) PERSONALITY MEASUREMENT (3)** A continuation of 70.411 that will emphasize the use and interpretation of instruments for measuring attitudes, interests and related aspects of personality. Instruments studied will include paper-pencil inventories, projective devices and observational procedures. Prerequisite: 70.411 and 70.230.

**70.425 (423) INTRODUCTION TO AND ANALYSIS OF INTERPERSONAL RELATIONSHIPS (3)** Current concepts of the helping relationship and an exploration of the conditions that facilitate its effectiveness. Prerequisite: 70.101.

**70.430 (426) SYSTEMS AND TECHNIQUES OF COUNSELING PRACTICE (3)** Review and application of current theoretical approaches to the helping relationship. Prerequisite: 70.425 and 70.411.

**70.431 GROUP DYNAMICS (3)** Intensive study of group interactions with emphasis upon reciprocal group influence of behavior. Prerequisite: 70.221 or consent of instructor.

**70.435 (427) SUPERVISED FIELD EXPERIENCE (3-6)** Placement in a community service agency to familiarize the student with its current practices. Supervised client contact will be provided. Prerequisite: 70.370, 70.430 and consent of department.

**70.441 INFORMATION SERVICE IN COUNSELING AND GUIDANCE (3)** Educational and vocational resources. Evaluation, classification and use of such information. Prerequisite: 70.101.

**70.460 (409) COMPARATIVE PSYCHOLOGY (3)** The differences in behavior between species will be compared within a framework of learning, ethology, and neuropsychology. Prerequisite: 70.261.

**70.461 COGNITIVE PSYCHOLOGY (3)** The nature of the cognitive processes, an analysis of the organization of cognitive abilities, and problems in cognition. Theoretical viewpoints will be explored, including those of Piaget, J.P. Guilford, Ausubel, Lewin, Skinner. A comparison among theories will be made as they relate to the thinking processes.

**70.465 (412) PHYSIOLOGICAL PSYCHOLOGY (4)** The physiological basis of behavior, with consideration of receptor, central and effector structures and function. Three hours lecture, 2 hours laboratory per week. Prerequisite: 70.261.

**70.471 (460) INTRODUCTION TO THE EXCEPTIONAL CHILD (3)** Children with a typical, physical, mental, social and emotional development, including the physically handicapped, the mentally retarded, the gifted, and emotionally disturbed children. Prerequisite: 70.201 or 70.211.

**70.480 (488) SYSTEMS OF PSYCHOLOGY (3)** Schools of psychology with their theoretical and methodological approaches. Prerequisite: Consent of instructor.

**70.485 (486) EXPERIMENTAL DESIGN (4)** (Honors) Design and analysis — Analysis of variance (completely randomized design, repeated measurement designs, etc.), multiple comparisons, nonparametrics, general problems related to sampling, experimental effects, etc. Prerequisite: 70.111 and consent of instructor.

**70.488 BEHAVIOR MODIFICATION (3)**

**70.491 (490) INDEPENDENT INVESTIGATION IN PSYCHOLOGY (3)** An opportunity for especially qualified students to undertake research problems according to their interest and training under the direction of a staff member. Prerequisite: 70.261 and consent of department.

## *Graduate Division*

**70.511 (501) DEVELOPMENTAL PSYCHOLOGY (3)** Psychological structures and functions in human development. Theoretical and research approaches. Prerequisite: 70.201 or equivalent.

**70.520 (415) INDIVIDUAL INTELLIGENCE TESTING (3)** Construction, standardization, administration and scoring of Stanford-Binet and the Wechsler Individual Intelligence Tests. Prerequisite: 70.111 and 70.411. Open only to graduate students in the School Psychology program.

**70.521 (505) ADVANCED EDUCATIONAL PSYCHOLOGY (3)** Survey of current research in Child Psychology, Learning, Mental Hygiene, and Test & Measurements. Emphasis on critical analysis of studies. Prerequisite: 70.511.

**70.531 (506) ADVANCED ABNORMAL PSYCHOLOGY (3)** Current and historical perspectives of psychopathology. Emphasis on varied approaches in contemporary schools. Methods of assessment and treatment. Prerequisite: 70.560 or equivalent.

**70.540 (553) MENTAL HYGIENE IN EDUCATION (3)** Principles of mental hygiene and their application to the educational setting. Major emphasis on wholesome personality development. Prerequisite: 70.511.

**70.547 GROUP PSYCHODYNAMICS I**

**70.548 GROUP PSYCHODYNAMICS II**

**70.550 (557) DIAGNOSTIC TECHNIQUES IN EDUCATION (3)** Use of standardized and teacher-constructed instruments for diagnostic and instructional purposes. Prerequisite: 70.511, 70.411 or equivalent.

**70.560 (513) PSYCHODYNAMICS OF BEHAVIOR (3)** Description of the manifestation and consequences of the interaction of the emotional needs and the behavioral syndromes. Prerequisite: 70.350 and 70.361 or 70.230.

**70.563 SYSTEMS OF PSYCHOTHERAPY (3)** Course is designed to acquaint students with the more prominent schools of psychotherapy. Particular emphasis is placed on the psychotherapeutic aspect of educational and clinical settings. Prerequisite: 70.350, 70.361 or 70.230, 70.531.

**70.570 (519) REFERRAL RESOURCES FOR THE SCHOOL AGE CHILD (3)** A study of referral services for the enhancement of the emotional, vocational and the behavioral adaptation of children in need of services beyond the classroom situation. The course attempts to give direct knowledge to the student of all such specialized facilities both school and community sponsored. Prerequisite: 70.511.

**70.573-574 ADVANCED EXPERIMENTAL PSYCHOLOGY (3,3)** The first semester is comprised of experimentation in the field of human behavior, and the second will emphasize experimentation in the field of animal behavior. Prerequisite: Consent of department.

**70.577 LEARNING (3)** A thorough coverage of major learning theories and models. Prerequisite: Consent of department.

**70.579-580 SEMINAR (1,1)** Selected readings of the current literature will be investigated by the students and faculty. Prerequisite: Consent of department.

**70.581 ADVANCED HISTORY AND SYSTEMS (3)** Ancient and modern psychological history; discussion of ancient history will draw heavily from both philosophy and physiology; discussion of modern history will develop psychology in various countries. The analysis of systems will include a study of functionalism, structuralism, behaviorism, gestalt and psychoanalysis. Prerequisite: Consent of department.

**70.584 COLLEGE TEACHING SEMINAR (3)** Materials and procedures for producing successful students in lower level courses will be explored. Prerequisite: Consent of department.

**70.587-588 EXPERIMENTAL DESIGN (3,3)** In the first semester, emphasis will be placed on the techniques of analysis of variance and non-parametric statistics. The second semester is comprised of a detailed survey of correlational and factor analytic techniques. Prerequisite: Consent of department.

**70.591 (515) PROJECTIVE TECHNIQUES I (3)** This is the first of a two course sequence dealing with projective techniques. The first semester emphasizes an introduction to the administration and scoring of projectives in current clinical use. Credit will be awarded only upon completion of the first and second semester of this sequence. Prerequisite: Consent of coordinator. Open only to graduate students in the School Psychology program.

**70.592 (516) PROJECTIVE TECHNIQUES II (3)** The second of a two semester sequence in projective techniques. This course emphasizes the interpretation of projective data and diagnostic implications. Particular emphasis will be placed on the evaluation of learning problems. Prerequisite: 70.591 and consent of Coordinator. Open only to graduate students in the School Psychology program.



**70.605 (511) PRINCIPLES OF GUIDANCE (3)** Aims at establishing a philosophy and gaining a knowledge of the principles of guidance. Includes an introduction to the literature of the field. Prerequisite: 70 511 or equivalent

**70.607 (520) OCCUPATIONAL INFORMATION (3)** Provides students with knowledge of educational and vocational opportunities and community referral sources essential to a sound guidance program. Includes evaluation, classification and use of such information in the instructional program. Group guidance, counseling and placement. Prerequisite: 70 605

**70.611 (512) ANALYSIS OF THE INDIVIDUAL (3)** Techniques available in studying the individual. Emphasizes data in the area of vocational, educational and personal adjustment. Prerequisite: 70 605 and 70 411 (70 605 may be taken concurrently)

**70.615 (510) TECHNIQUES OF COUNSELING (3)** Counseling and therapy techniques used by counselors and other professional personnel working with children and adults. Prerequisite: 70 430 or equivalent

**70.621 (514) GROUP TECHNIQUES IN GUIDANCE AND COUNSELING (3)** The selection, organization and effective use of group guidance materials and techniques in providing for the common needs of groups of students in making more effective educational, occupational, social and personal adjustment. Prerequisite: 70 430 and 70 441

**70.627 (527) USE OF TESTS IN COUNSELING (3)** Practice in the use and analysis of techniques for understanding the individual with emphasis upon standardized procedures used in the public schools. Prerequisite: 70 611

**70.630 (517) COUNSELING THE ELEMENTARY SCHOOL CHILD (3)** Study of the dynamics of child behavior, techniques of assessing and counseling. Study of the family, school, and community structures and their effect on the child. Prerequisite: 70 430.

**70.635 (530) COMMUNICATION MEDIA WITH CHILDREN I (3)** Introduction to the methods and materials used in diagnostic and therapeutic approaches to children. Use of toys, art media and play activities emphasized. Prerequisite: 70 615 or equivalent

**70.636 (531) COMMUNICATION MEDIA WITH CHILDREN II (3)** A continuation of 70 635 with emphasis upon practical application of the theoretical principles involved in the psychodiagnostic and therapeutic use of play media. Use of the playroom and its materials will be emphasized. Prerequisite: 70 645 and 70 635

**70.645 (523) COUNSELING PRACTICUM I (3)** Field experience in educational, vocational and personal counseling. Prerequisite: 70 645 and consent of department. Students registering for this course will be required to have one half day (1 p.m. to 5 p.m.) free for Practicum assignments.

**70.646 (525) COUNSELING PRACTICUM II (3)** Field experience in educational, vocational and personal counseling. Prerequisite: 70 645 and consent of department. Students registering for this course will be required to have one half day (1 p.m. to 5 p.m.) free for Practicum assignments.

**70.651 (521) CLINICAL PRACTICUM IN SCHOOL PSYCHOLOGY I (3)** Provides an opportunity to participate in diagnostic, remedial and therapeutic planning as well as follow-up studies under supervision of practicing certified psychologists. Prerequisite: Consent of coordinator. Open only to graduate students in the School Psychology program.

**70.652 (522) CLINICAL PRACTICUM IN SCHOOL PSYCHOLOGY II (3)** Off campus placements will be arranged for each student. Supervision from a certified clinical psychologist will be conducted on a group as well as individual basis. Prerequisite: 70 651 and consent of coordinator. Open only to graduate students in the School Psychology program.

**70.656 (595) SEMINAR IN COUNSELING — ELEMENTARY (3)** Analysis of research trends, examination of critical issues, reports of student research projects, professional problems and ethics. Prerequisite: 70 645

**70.660 (596) SEMINAR IN COUNSELING — SECONDARY (3)** Analysis of research trends; examination of critical issues, reports of student research projects, professional problems and ethics. Prerequisite: 70 645

**70.690 (591) SEMINAR IN SCHOOL PSYCHOLOGY (3)** Consideration of current practices and trends in school psychology. Each student will do a study of interest to him and submit a formal written paper. Prerequisite: Consent of coordinator. Open only to graduate students in the School Psychology program.

**70.699 THESIS (3)** Optional for students in Master of Arts in School Psychology program



# Sociology

## SOCIOLOGY COURSES (SOCI)

### *Upper Division — Undergraduate and Graduate*

**80.303 SOCIAL WELFARE (3)** Historical development, philosophy and theory; processes developed and fields of social work; federal, state and community programs. Prerequisite: 80.101.

**80.342 SOCIAL STRATIFICATION (3)** The nature of social stratification; relationship of social mobility to social organization; social class structure in traditional and dynamic societies. Prerequisite: 80.101

**80.343 SOCIAL CHANGE (3)** A sociological analysis of the sources, processes and consequences of social change. Prerequisite: 80.101.

**80.344 URBAN SOCIOLOGY (3)** Historical development and organization of urban communities; rise and dominance of the modern city; relationship between cities and social behavior; problems and adjustment. Prerequisite: 80.101.

**80.345 SOCIAL ORGANIZATION (3)** An analysis of the social structure of human groups; the processes leading to the formation, stability, instability and changes of social organizations. Prerequisite: 80.101

**80.346 POLITICAL ANTHROPOLOGY (3)** Comparative political institutions and behavior among contemporary non-literate societies. Theoretical problems of social control, state and non-state systems, symbolic aspects of power, levels of political integration, and warfare. Prerequisite: 80.101 or 80.105

**80.347 COMMUNITY ORGANIZATION (3)** The organization of the community as a vehicle for identifying and meeting human needs; processes and techniques of community planning and development, traditional and contemporary. Prerequisite: 80.101.

### **80.359 POLITICAL AND SOCIAL ASPECTS OF REVOLUTION (3)**

**80.363 INDIVIDUAL AND SOCIETY (3)** A social psychological approach to the interrelationships of the individual and his social and cultural environment, behavioral characteristics resulting from social experience. Prerequisite: 80.101.

**80.364 RELIGION, MAGIC AND WITCHCRAFT (3)** The world view, beliefs, and rituals of selected non-literate peoples considered with reference to religion as a universal category of human culture. Prerequisite: 80.101 or 80.105.

**80.365 ETHNOGRAPHY OF NORTH AMERICA (3)** A comparative description and interpretation of native American Indian culture. Prerequisite: 80.101 and 80.207.

**80.381 MINORITY GROUPS (3)** An examination of intergroup life as an aspect of society; conflicts between races, ethnic groups, and minorities; prejudice, segregation and integration. Prerequisite: 80.101.

**80.382 FIELDS AND METHODS OF SOCIAL WORK (3)** Introduction to the knowledge base and theory of professional social work; the agency as setting; practical methods and techniques; significance of day to day occurrences in agencies. Prerequisite: 80.303

**80.383 CRIMINOLOGY (3)** The nature of crime; factors underlying criminal behavior; police, courts, law, and correctional institutions. Prerequisite: 80.101.

**80.386 JUVENILE DELINQUENCY (3)** A study of delinquency; the process of socialization and delinquent behavior in society; prevention and treatment of delinquency. Prerequisite: 80.101.

**80.388 PEASANT CULTURES (3)** The course will focus on the rural agricultural population of modern states; their traditional lifeways and the changes being wrought by modernization. Prerequisite: 80.101

**80.392 POPULATION AND ECOLOGY (3)** Social, economic and political problems related to changes, distribution and movement of population; analysis of contemporary population trends in the U.S. and the world. Prerequisite: 80.101

**80.402 SOCIAL MOVEMENTS (3)** General, specific and expressive movements; the forces producing change, the manner in which new social organizations are formed and established. Prerequisite: 80.101

**80.403 COLLECTIVE BEHAVIOR (3)** Study of historical and contemporary major unstructured and semi-structured situations; crowds, mobs, riots. Prerequisite: 80.101.

**80.406 SOCIOLOGY OF EDUCATION (3)** Sociological analysis of education as a basic social institution, formal and informal organizations of education systems, relationship to socialization; major social trends in education, concept of academic freedom Prerequisite: 80.101.

**80.407 SOCIOLOGICAL THEORY (3)** Major systems of sociological theory; the works, assumptions, and workings of major European and American schools Prerequisite: 80.101

**80.408 ADVANCED SOCIOLOGICAL THEORY (3)** Critical analysis of emerging theoretical schools. Attention will be given to contemporary theoretical problems Prerequisite: 80.101 and 80.407

**80.410 SMALL GROUPS (3)** Formal and informal action in small groups generally characterized by face-to-face interaction, emphasis on leadership, group dynamics and opinion formation Prerequisite: 80.101

**80.457 SOCIAL DEVIANCE (3)** Deviance as an aspect of social living, the problem of understanding conformity and deviance, identification of deviants, society's response to deviant behavior. Prerequisite: 80.101.

**80.470-479 SPECIAL TOPICS IN SOCIOLOGY (3)** An examination of current topics in Sociology. The content of the course will depend upon mutual faculty and student interest. Prerequisite: Consent of instructor

**80.485 SEMINAR IN SOCIOLOGY (3)** Exploring and analyzing major areas of sociology. Prerequisite: 80.407 and consent of instructor

**80.495 RESEARCH METHODS (3)** A consideration of methodology of sociological research; the various steps in conducting research projects, from statement of the problem to final analysis of data. Prerequisite: 80.101 and PSYC 70.111.

**80.497 SPECIAL RESEARCH PROJECT (2-4)** Directed study and research on an individual basis. Prerequisite: 80.101 and consent of instructor.

**80.499 INDEPENDENT RESEARCH (3)** Supervised research and sociological investigation leading to preparation of a research project or a supervised laboratory experience in a social agency. Prerequisite: 80.495 and consent of department chairman.

## Speech and Drama

### *SPEECH AND DRAMA COURSES (SPCH)*

#### *GENERAL SPEECH (including Public Address)*

#### *GENERAL SPEECH COURSES (SPCH)*

#### *Upper Division — Undergraduate and Graduate*

**84.395 INDEPENDENT STUDY IN ORAL INTERPRETATION (1-6)** Independent study in selected areas of oral interpretation through directed readings, projects, papers, or seminars. Open by invitation of the Speech Department to qualified students. Prerequisite: 84.221, invitation of the Speech Department and consent of chosen instructor.

**84.402 SPEECH SCIENCE (3)** Lectures, readings, and demonstrations presenting the structure and function of the physiological systems involved in respiration phonation, resonance and articulation. Fundamentals of the physiology of the speech mechanism and the physics of sound transmission. Prerequisite: 84.310.

**84.403 CLASSICAL AND MODERN RHETORIC (3)** Survey of rhetorical theory from Isocrates to contemporary communication theorists. Particular attention is given to Aristotle, Cicero and Quintillian. Designed to develop standards of rhetorical criticism.

**84.405 AMERICAN PUBLIC ADDRESS (3)** History and criticism of two centuries of public address in the United States, the great speakers, their historical environment, their beliefs and effects on American life. Prerequisite: 84.303 or HIST 40.145 or consent of instructor.

**84.406 BRITISH PUBLIC ADDRESS (3)** Public address in Great Britain, the great speakers, their historical environment, their beliefs and effects on American life. Prerequisite: 84.303 or HIST 40.263 or consent of instructor.

**84.421 EXPERIMENTAL PHONETICS (3)** An advanced course in the study of Phonetic Science. Concerned with the application of experimental methods to study and research in voice and phonetics, especially spectrographic analysis. Includes critical review of research literature in Scientific Phonetics. Prerequisite: 84.310 or consent of instructor.

**84.423 ADVANCED ORAL INTERPRETATION (3)** Advanced theory and practice of oral interpretation with emphasis placed upon the relationship of dramatic structure to the interpreter's performance and his audience. Prerequisite: 84.221 or consent of instructor.

**84.432 THE COACHING AND MANAGEMENT OF FORENSICS (3)** Problems of organizing, financing, and directing the forensic program in schools and colleges. Coaching, schedules, and techniques for debate and individual speech events. Competing philosophies of forensics and secondary school and college-level forensic organization are studied.

**84.493 INDEPENDENT STUDY IN READERS THEATRE (3)** Independent study in selected areas of Readers Theatre through directed readings, projects, papers or seminars. Open by invitation of the Speech Department to qualified students.

**84.495 INDEPENDENT STUDY IN PUBLIC ADDRESS (1-6)** Independent study in selected areas of public address through directed readings, projects, papers, or seminars. Open by invitation of the Speech Department to qualified students.

### *THEATRE ARTS COURSES (THAR)*

#### *Upper Division — Undergraduate and Graduate*

**86.307 (390) THEATRE ARTS FOR CHILDREN (2)** Technique and theory of playmaking for children. Participation in story telling, story dramatization and production, improvisation, rhythms, pantomime, and puppetry.

**86.321 ACTING III (3)** Theory and practice of acting. Work in role analysis and character building. Prerequisite: 86.222 or consent of instructor.

**86.331 (370) PLAY DIRECTING I (3)** Fundamentals of play directing through exercises, directorial play analysis and project in directing a contemporary one-act play. Prerequisite: 86.205 and 86.221 or consent of instructor.

#### **86.345 STAGE MAKE UP II (3)**

**86.355 (360) STAGE LIGHTING (3)** Theory of light and electricity with emphasis on the planning of light plots. Aesthetic effort of stage lighting and problems of lighting small stages with minimum equipment. Prerequisite: 86.251 or consent of instructor.

**86.361 (380) DESIGN FOR THE STAGE (3)** Theory and practice of designing scenery for the stage. Includes a study of the relationship of the set design to the script and other elements of production, examination of research techniques in preparation for scene designing and practice in designing scenery for many styles and types of drama. Prerequisite: 86.251 or consent of instructor.

**86.371 THEATRE GAMES I (1)** Exercises in acting designed to develop the individual's creativity and encourage work on personal acting technique. Prerequisite: 86.221.

**86.372 THEATRE GAMES II (1)** Exercises in acting designed to develop the individual's creativity and encourage work on personal acting technique. Prerequisite: 86.221.

**86.401 (401) THEATRE AS A PROFESSION (1)** Working conditions, unions, employment opportunities in the theatre. Preparation of professional credentials, audition material, etc. Prerequisite: Theatre Arts major or consent of instructor.

**86.407 THEATRE ARTS FOR CHILDREN — ADVANCED (2)** Practical experience in directing and guiding Theatre Arts with children in a classroom or other arranged situation. Prerequisite: 86.307.

**86.431 (470) DIRECTING THE PERIOD PLAY (3)** Research technique and directorial approaches to period drama. Individual directing projects of scenes from representative period dramas. Prerequisite: 86.331 or consent of instructor.

**86.441 (451) COSTUME DESIGN (3)** Study of the theories, principles, of costume design and practice in designing costumes for the stage. Including a study of the relationship of color, texture, and historical period to the script and style of a theatrical production. Also practical use of costume research techniques in preparing designs. Experience in designing costumes for many historical periods and styles of plays.

**86.485 ADVANCED THEATRE WORKSHOP FOR SECONDARY SCHOOL TEACHERS ( 6 )**

**86.487 PROFESSIONAL THEATRE SEMINAR (12)** A semester's internship in a resident theatre company. For majors only. Prerequisite: Approval of director of theatre.

**86.493 PROBLEMS IN THEATRE I (1-3)**

**86.494 PROBLEMS IN THEATRE II (1-3)** Independent study of an academic or creative nature. For majors only. Prerequisite: Approval of plan of study by instructor and director of theatre.

**86.495 PROBLEMS IN THEATRE III (1-3)**

**86.496 PROBLEMS IN THEATRE IV (1-3)**

**86.497 PROBLEMS IN THEATRE V (1-3)** Independent study of an academic or creative nature. For majors only. Prerequisite: Approval of plan of study by instructor and department chairman. 86.493, 86.494, 86.495, 86.496 and 86.497.

**86.498 PROBLEMS IN THEATRE VI (1-3)** Independent study of an academic or creative nature. Prerequisite: Approval of plan of study by instructor and department chairman. 86.493, 86.494, 86.495, 86.496 and 86.497.

**MASS COMMUNICATION COURSES (MCOM)**

*Upper Division — Undergraduate and Graduate*

**53.315 BUSINESS AND PROFESSIONAL SPEECH (3)** Participation in various types of speeches and study discussion, conference techniques, and parliamentary procedure.

**53.351 PUBLIC OPINION AND THE PRESS (3)** Journalistic aspects of public opinion and propaganda, the impact of mass communication media on the formation of public opinion. Techniques of polling and testing public opinion.

**53.353 PUBLICITY AND PUBLIC RELATIONS (3)** Provides an awareness and understanding of public relations activities. Students learn publicity techniques and how to organize campaigns.

**53.361 ADVANCED TELEVISION TECHNIQUES (3)** Advanced techniques in television production and performance for commercial and educational television. Major emphasis on directing. Prerequisite: 53.261 or consent of instructor.

**53.367 TELEVISION WRITING (3)** Training and practice in writing commercials, documentaries and plays for the specific medium of television — commercial and educational. Prerequisite: ENGL 30.102, 30.204.

**53.385 MASS MEDIA IN MODERN SOCIETY (3)** Includes study of structure and function of mass media plus analysis of content, audiences and effects of the media.

**53.395 INDEPENDENT STUDY IN FILM AND BROADCASTING (1-6)** Independent study in selected areas of film and broadcasting through directed readings, projects, papers, or seminars. Open by invitation of the department to qualified students.

**53.475 FILM WORKSHOP (3)** Designed primarily to provide experienced or future teachers with background about film so that they may better help pupils to become informed and to develop critical reactions to the films they view. Prerequisite: Consent of instructor.

**53.485 NEWSPAPER WORKSHOP (3)** Sponsored by the member newspapers of the Maryland Delaware Press Association and Towson State College. Designed primarily to provide public school teachers with background about the mass media so that they may better help pupils to become informed and develop intelligent opinions on current affairs. Students will be expected to take two afternoon field trips. Prerequisite: Consent of instructor.

**53.496 INDEPENDENT STUDY IN JOURNALISM (1-6)** Independent study in the varied aspects of newspaper writing. Opportunity will be provided to work under the guidance of professional newspapermen connected with the Baltimore papers. Prerequisite: Open by invitation of the department to qualified students.

**53.497 INDEPENDENT STUDY IN PUBLIC RELATIONS (1-6)** Independent study in selected areas of public relations through directed readings, projects, papers or seminars. When possible opportunity will be provided for the student to work outside the classroom, under the cooperative guidance of his instructor and a full-time professional public relations person in the field of the student's choice. Prerequisite: Open by invitation of the department to qualified students.

## **SPEECH PATHOLOGY AND AUDIOLOGY COURSES (SPPA)**

### ***Upper Division — Undergraduate and Graduate***

**87.301 SPEECH PATHOLOGY I (3)** Analysis of etiologies and symptoms in functional and organic speech disorders such as voice problems, articulation, cleft palate and esophageal speech. Observation will be required. Prerequisite: 87.105

**87.304 METHODS OF SPEECH CORRECTION I (3)** Methods of treating speech and language disorders. Offered are clinical techniques, demonstrations, and practice in diagnostic procedures. Therapeutic materials will be studied. Observation and participation will be required. Prerequisite: 87.301.

**87.305 STUTTERING — ETIOLOGY AND THERAPY (3)** Analysis of etiologies, symptoms and therapeutic management of stuttering. Prerequisite: 87.301 or consent of instructor.

**87.308 SPEECH PATHOLOGY II (3)** Analysis of etiologies and symptoms of speech disorders related to neuropathologies such as cerebral palsy, mentally handicapped, and language learning disabilities associated with speech and listening. Observation and participation will be required. Prerequisite: 87.301

**87.309 METHODS OF SPEECH CORRECTION II (3)** Advanced method of testing speech and language disorders. Practice in clinical techniques and group therapy will be required. General principles of psychology and their application to speech, hearing and language therapy will be reviewed. Therapeutic materials will be studied. Prerequisite: 87.304 and/or consent of instructor.

**87.401 CLINICAL AUDIOLOGY (3)** This course deals with: audiometric procedures for differential diagnosis of auditory disorders; functional loss; noise; air and bone conduction; masking; and principles of examination and interviewing techniques. Students will be required to observe and participate in audiologic workups. Prerequisite: 87.241 and/or consent of instructor.

**87.404 PROFESSIONAL PROGRAMS, PROBLEMS AND RELATIONSHIP (3)** Organization and administration of speech pathology and audiology programs in various professional settings, personal, professional and community relationships and responsibilities. Observation will be required. Prerequisite: 87.487 or consent of instructor.

**87.407 SPEECH READING AND AUDITORY REHABILITATION (3)** Theories, objectives and techniques for the teaching of speech reading, speech conservation and auditory training. Observations and practice will be required. Prerequisite: 87.241

**87.408 SPECIAL PROBLEMS SEMINAR - CLEFT PALATE (3)** A multidisciplinary approach to all aspects of the patient with a cleft which would include lectures on etiology, embryology, speech, patterns, otological and audiological considerations, dental and plastic reconstruction, speech therapy and follow-up. Prerequisite: 87.301, professional experience or consent of instructor.

**87.409 SPEECH AND LANGUAGE FOR THE DEAF CHILD (3)** Principles and techniques for developing speech and language in the deaf child using whole-word and analytical methods, consideration of multiple handicaps; demonstration and observation will be required. Prerequisite: 87.308, 87.241 and/or consent of instructor.

**87.410 SPECIAL PROBLEMS PRACTICUM CLEFT PALATE (3)** Clinical practice in all aspects of the patient with a cleft palate. Prerequisite: 87.301, professional experience or consent of instructor.

**87.411 SEMINAR/WORKSHOP IN SPEECH PATHOLOGY AND AUDIOLOGY — SPEECH AND LANGUAGE DEVELOPMENT FOR THE SPEECH AND LANGUAGE DEPRIVED (6)** Diagnostic therapeutic and methods for the management of children who are deprived in the areas of speech and language. Prerequisite: Professional experience and/or consent of instructor

**87.412 INTRODUCTION TO GRADUATE STUDY IN SPEECH PATHOLOGY AND AUDIOLOGY (3)** Discussion of research methods, techniques and needs in speech pathology and audiology. Reading and understanding professional journal articles. Prerequisite: Consent of departmental graduate committee and/or graduate standing.

**87.421 SEMINAR/WORKSHOP — HEARING IMPAIRED (6)** Psychology and science of hearing and anatomy of the hearing mechanism will be reviewed. Investigation of communication, educational, vocational, psychological and social problems of the hearing impaired as these relate to personal adjustment in today's society. The study of the principles and techniques of teaching the hearing impaired. Prerequisite: 87.487 or professional experience or consent of instructor.



**87.451 AUDIOLOGICAL MANAGEMENT OF THE EXCEPTIONAL CHILD (3)** Principles and techniques for identifying and evaluating hearing impaired children, consideration of multiple handicaps, demonstrations and practice. Prerequisite: 87.341, professional experience or consent of instructor.

**87.485 VOICE AND ARTICULATION SEMINAR (3)** Investigation of nature and treatment of organic and functional voice and articulation disorders in children and adults, including vocal strain, nodules, carcinoma, and dysarthria, management of the laryngectomized. Prerequisite: 87.308 and 87.487.

**87.487 CLINICAL PRACTICE IN SPEECH CORRECTION (2-6)** Clinical observation of and practice in therapeutic procedures with various types of speech, language and/or hearing disorders in the Towson State College Speech and Hearing Clinic. Students may also be assigned a practicum in the Lida Lee Tall Learning Resources Center and/or various centers that offer speech, language or hearing therapy, such as hospitals or private agencies. (Credit is for 2 semester hours per semester, except summer.) Prerequisite: 87.308 or consent of instructor.

**87.488 CLINICAL PRACTICE IN PUBLIC SCHOOLS (2)** Students are assigned to an approved therapy program for observation and practice teaching. The student will earn a minimum of 100 of the 200 clinical clock hours required for certification. Prerequisite: 87.487.

**87.489 CLINICAL COUNSELING IN AUDIOLOGY AND SPEECH PATHOLOGY (3)** Systems of directive and nondirective counseling utilized by speech and hearing clinicians for the management of organic and nonorganic disorders. Techniques of interviewing, case history recording, and the conditioning of semantic reactions through interpersonal interaction. Prerequisite: 87.301 and 87.308.

**87.495 INTRODUCTION TO RESEARCH IN SPEECH PATHOLOGY AND AUDIOLOGY (1)** Discussion of research methods, techniques and needs in Speech Pathology and Audiology. Reading and understanding professional journal articles. Prerequisite: 87.487 and consent of instructor.

### *Graduate Division*

**87.501 LANGUAGE DISORDERS OF CHILDREN (3)** Investigation of mental retardation, emotional disturbance and hearing loss in children in terms of speech and language disorders. Prerequisite: 87.105 and 87.308.

**87.505 NEUROPATHOLOGIES OF SPEECH (3)** Etiology, nature and management of cerebral palsy and minimal brain damage in children, and dysphasia in adults. Prerequisite: 87.308 and 87.487.

**87.507 DIAGNOSTIC METHODS IN SPEECH PATHOLOGY (3)** Standardized and non-standardized techniques for testing the speech, language and general intellectual functioning of child and adult. Practicum experience in speech evaluations and report writing. Prerequisite: 87.485 and 87.505.

**87.511 APPLICATION OF LINGUISTICS TO SPEECH PATHOLOGY (3)** Investigation of traditional and contemporary research in the area of psycholinguistics and generative grammar. Application of this to diagnosis and management of those with language disorders. Prerequisite: 87.105 and 30.431.

**87.585 SEMINAR IN MAXILLOFACIAL DISORDERS (3)** Emphasis on the etiology, nature and team-management of the individual with cleft palate/lip. Discussion of other maxillofacial deformities resulting in defective speech. Prerequisite: 87.308.

**87.601 INDEPENDENT STUDY IN SPEECH PATHOLOGY AND AUDIOLOGY (3)** Preparation of extensive paper dealing with professional clinical experiences. Discussions of techniques, innovations, methods employed and recommendations for improvements. Prerequisite: Professional experience.

**87.645 ADVANCED CLINICAL PRACTICE (2)** Experience in the College Clinic as well as externship in public schools, hospital clinics, and rehabilitation settings with the speech defective. Introduction to the supervision of undergraduate trainees. Prerequisite: 87.487 and/or professional experience.

**87.695 GRADUATE RESEARCH PAPER IN SPEECH PATHOLOGY AND AUDIOLOGY (3)** Preparation of extensive paper dealing with a current area of research in the field or with the results of a clinical experiment. Prerequisite: Consent of departmental graduate committee.

# Administration

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<i>Frederick C. Arnold</i> .....	<i>Associate Director of Graduate Studies</i>

## GRADUATE STUDIES COMMITTEE

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